Curriculum Vitae

Prof. Tae-Woo Lee, Ph.D

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Education

- 1999.3-2002.2: Ph.D. in Chemical and Biomolecular Engineering,
  Korea Advanced Institute of Science and Technology (**KAIST**), Korea
  (Advisor: O Ok Park)
  Dissertation Title: *"High efficiency polymer light-emitting diodes and lasers"*
- 1997.3-1999.2: M.S. in Chemical Engineering,
  Korea Advanced Institute of Science and Technology (**KAIST**), Korea
  (Advisor: O Ok Park)
  Thesis Title: *"Improvement of EL efficiency in polymer light-emitting diodes by heat treatments"*
- 1993.3-1997.2: B.S. in Chemical Engineering,
  Korea Advanced Institute of Science and Technology (**KAIST**), Korea

Professional Experiences

- 2019.03-Present: Professor
  Department of Materials Science and Engineering, Seoul National University, Korea
  (Joint appointment) Department of Chemical and Biological Engineering, Seoul National University, Korea

- 2016.09-2019.02: Associate Professor
  Department of Materials Science and Engineering, Seoul National University, Korea

- 2015.07-2016.06: Visiting Professor
  Department of Chemical Engineering, Stanford University, USA

- 2012.03-2016.08.31: Tenured Associate Professor
  Department of Materials Science and Engineering, Pohang University of Science and Technology (POSTECH), Korea
  (Joint appointment) Department of Chemical Engineering, POSTECH
  (Joint appointment) School of Environmental Science and Engineering, POSTECH
  (Joint appointment) Division of Advanced Materials Science, POSTECH

- 2008.08-2012.02: Assistant Professor
  Department of Materials Science and Engineering, Pohang University of Science and Technology (POSTECH), Korea

- 2008.06-2008.08: Senior Research Scientist in OLED Lab
  Samsung Electronics LCD Business, Korea
  Research in "*Organic/Polymer light-emitting diodes (OLEDs)*".

- 2003.09-2008.05: Senior Research Scientist in OLED Program Team, Display Lab,
  Samsung Advanced Institute of Technology, Korea

Research in "*Organic thin-film transistors (OTFTs)*" and "*Organic/Polymer light-emitting diodes (OLEDs)*"

- 2002.3-2003.8: Post-Doctoral Researcher in Physical Science Research Department, **Bell Laboratories**, Lucent Technologies,
  600 Mountain Avenue, Murray Hill, NJ 07974, USA
  Research in "*Soft lithography for applications to organic opto-electronic devices*" and "*Two-photon lithography for applications to photonic structures and soft lithography*"

Honors and Awards

- 2023. 11. 29: **S-Oil 과학문화재단 우수학위논문상**
  - From S-Oil **(Student: J. S. Kim)**

- 2023. 11. 15: **Highly Cited Researcher 2023**
  - From 2023 Clarivate

- 2023. 11. 09: **2023 년 국가연구개발 우수성과 10 선**
  - From 한국과학기술기획평가원

- 2023. 11. 03: **제 19 회 경암상**
  - From 경암교육문화재단

- 2023. 07. 19: **Senior Member of SPIE**
  - From The international society for optics and photonics

- 2023. 07. 05: **Best Session Organizer Award**
  - From Photonics And Electromagnetics Research Symposium 2023

- 2023. 06. 07: **Outstanding Poster Award**
  - From Global Conference on Innovation Materials 2023 (**Student: S. E. Chang**)

- 2023. 06. 06-Current: Editorial Advisory Board Member of the Journal, “Chem & Bio Engineering”, ACS partner Jounal

- 2023. 05. 19: **Young Scientist Award**
  - From the 33rd International Conference on Molecular Electronics and Devices (IC ME&D) (**Student: J. S. Kim**)

- 2023. 04. 14: **MRS Graduate Student Silver Award**
  - From 2023 Materials Research Society (MRS) Spring Meeting. (**Student: J. S. Kim)**

- 2023. 04.11-Current: **International Advisory Board Member** of the Journal, **Querrey-Simpson Institute for Bioelectronics**, Northwestern

- 2022. 12. 07: **LG DIsplay 산학협력센터 교류회 우수 발표상**
  - From LG Display 산학현력센터. **(Student: H. Zhou)**

- 2022. 12. 07: **Seoul National University MSE Best Graduation Thesis Award**
  - From 2022 Seoul National University MSE Best Graduation Thesis Award. **(Student: J. S. Kim)**

- 2022. 12. 07: **BK21 Great Paper Award**
  - From 2022 BK21 Great Paper Award **(Student: J.Park)**

- 2022. 12. 01: **MRS Graduate Student Silver Award**
  - From 2022 Materials Research Society (MRS) Fall Meeting. **(Student: H. Zhou)**

- 2022. 11. 29: **MRS Poster Award**
  - From 2022 Materials Research Society (MRS) Fall Meeting. **(Student: J. S. Kim)**

- 2022. 11. 15: **Highly Cited Researcher 2022**
  - From 2022 Clarivate

- 2022. 07. 08-Current: **International Advisory Board Member** of the Journal, "**Materials Today Electronics**", Elsevier.

- 2022. 05. 19: **Young Scientist Award**
  - From the 32nd International Conference on Molecular Electronics and Devices (IC ME&D) **(Student: S. Kim)**

- 2022. 05. 19: **Best Poster Award**
  - From the 32nd International Conference on Molecular Electronics and Devices (IC ME&D) **(Student: C. -H. Kim)**

- 2022. 05. 08: **MRS Best Poster Prize Winner**
  - 2022 Materials Research Society (MRS) Spring Meeting. (**Student: H. Zhou**)

- 2022. 05. 08: **MRS Poster Award**
  - 2022 Materials Research Society (MRS) Spring Meeting. (**Student: J. Park**)

- 2021. 12. 24: **한국과학기술한림원 정회원 선임**
  - From 2021 한국과학기술한림원

- 2021. 12. 22: **한국공학상 (대통령상)**
  - From 2021 과학기술정보통신부

- 2021. 12. 17: **산업통상자원부 표창장 (장관상)**
  - From 2021 한국유연인쇄전자학회 학술대회(KFPE)

- 2021. 12. 17: **Best Oral Presentation Award**
  - From 2021 한국유연인쇄전자학회 학술대회(KFPE) (**Student: H. Zhou**)

- 2021. 12. 17: **Best Poster Award**
  - From 2021 한국유연인쇄전자학회 학술대회(KFPE) (Student: M.-J Sung)

- 2021. 12. 17: **Highly Cited Researcher 2021**
  - From 2021 Clarivate

- 2021. 12. 17: **Chinese Government Award for Outstanding Self-financed Students Abroad**
  - From China Scholarship Council (**Student: H. Zhou)**

- 2021. 12. 10: **Best Poster Presesntation Award**
  - From The 12th International Conference on Advanced Materials and Devices (**Student: H. Zhou)**

- 2021. 09. 04: **Best Poster Award**

- From The 13th Asian Conference on organic Electronics (A-COE 2021) (**Student: S. Kim**)

- 2021. 07. 08: **Best Poster Award**
  - From 31th International Conferences on Molecular Electronics and Devices (IC ME&D 2021) (**Student: H. Zhou)**
  - From 31th International Conferences on Molecular Electronics and Devices (IC ME&D 2021) (**Student: J. Park)**

- 2021. 02. 18: **Best Poster Award**
  - From 2020 Korean Conference of Semiconductors (KCS) Poster Award (**Student: K. -N. Kim)**

- 2021. 01. 26: **The Grand Prize of Paper Award**
  - From 2020 Korean Conference of Semiconductors (KCS) Poster Award (**Student: D. H. Kim)**

- 2020. 12. 04: **Best Oral Presentation Award**
  - From 2020 Virtual MRS Spring/Fall Meeting & Exhibit (**Student: J. S. Kim)**

- 2020. 12. 04: **Best Poster Award**
  - From 2020 Virtual MRS Spring/Fall Meeting & Exhibit (**Student: K. Y. Jang)**
  - From 2020 Virtual MRS Spring/Fall Meeting & Exhibit (**Student: J. Park)**
  - From 2020 Material Research Society (MRS) Poster Award (**Student: H. Zhou)**

- 2020. 11. 03: Current: **International Advisory Board Member** of the Journal, "**Advanced Materials**.", Wiley-VCH.

- 2020. 08. 11: **KIDS AWARDS 2020**

- From The 20th International Meeting on Information Display (IMID2020) (**Student: H. Zhou**)

- 2020. 07. 14-Current: Editorial Board Member of the Journal, "Nano Convergence.", Springer

- 2020. 03. 10: **2020 MRS fellow (석학회원) 선임 (조선/동아/한국경제 등 보도)**

- 2020. 02. 19: **The Grand Prize of Paper Award**
  - From 2020 Korean Conference of Semiconductors(KCS) Poster Award (**Ph.D. H. L. Park**)

- 2020. 02. 19: **Best Poster Award**
  - From 2020 Korean Conference of Semiconductors (KCS) Poster Award (**Student: K. Y. Jang**)

- 2019. 12. 24**: 2019 년 국가연구개발 성과평가 유공 포상 '대통령 표창 수상'**
  - From Ministry of Science and ICT(과학기술정보통신부)

- 2019. 11. 26**: 2019 년도 10 대 나노융합기술 선정 '유기나노소재 기반 생체모방형 인공 신경기술'**
  - From Ministry of Trade, Industry and Energy (산업통상자원부), Ministry of Science and ICT (과학기술정보통신부)

- 2019. 11. 20**: Highly Cited Researcher 2019 (HCR 2019), 세상에서 가장 영향력 있는 연구자 선정 (논문 피인용 횟수 상위 1% 이내인 연구자)**
  - From Web of Science Group

- 2019. 10. 21: **국가 R&D 우수성과 100 선 기계소재분야 최우수 성과 선정**
  - From Ministry of Science and ICT(과학기술정보통신부)

- 2019. 09. 25: **BK21+ Best internship program in 2019**
  - From BK21 Plus Creative Talent Culture Material Buisness Group (BK21 플러스 창의인재양성 재료사업단) (**Student: W. Lee**)

- 2019. 09. 25: **BK21+ Best Paper Award**
  - From BK21 Plus Creative Talent Culture Material Buisness Group (BK21 플러스 창의인재양성 재료사업단) (**Student: H -D. Lee**)

- 2019. 08. 21: **ECOMAT (Wiley) Best Poster Award**
  - From 2019 International Symposium on Organic and Perovskite Electronics (ISOPE) (**Student: H.-D. Lee**)
  - From 2019 International Symposium on Organic and Perovskite Electronics (ISOPE) (**Student: H. Zhou**)

- 2019. 05. 13: **Young Scientist Award**
  - From 29th Intehrnational Conference on Molecular Electronics and Devices (IC ME&D) **(Dr. M.-H. Park)**

- 2019. 05. 13: **Best Poster Award**
  - From 30th Intehrnational Conference on Molecular Electronics and Devices (IC ME&D) **(Student. D.-G. Seo)**

- 2019. 05. 09: Editorial Board Member of the Journal, "EcoMat.", Wiley.

- 2019. 02. 07: **Best Poster Award**
  - From 2019 Korean Conference of Semiconductors(KCS) Poster Award(**Student: N. Kim)**
  - From 2019 Korean Conference of Semiconductors(KCS) Poster Award(**Student: S. Kim)**
  - From 2019 Korean Conference of Semiconductors(KCS) Poster Award(**Student: J. Park)**
  - From 2019 Korean Conference of Semiconductors(KCS) Poster Award(**Student: H.Zhou)**

- 2018. 12. 13: **BK Best Paper Award**
  - BK21 Plus Creative Talent Culture Material Buisness Group (BK21 플러스 창의인재양성 재료사업단) **(Student: J. S. Kim)**

- 2018. 12. 19: 2018 Top 5 Bio-Field Research Achievement and News
  - by BRIC (Biological Research Information Center)

- 2018. 12. 13: **ENGE 2018 Best Poster Paper Award**
  - From the Korean Institute of Metals and Materials (Student: S. Ahn)

- 2018. 10. 11: KOPTRI Award (KOPTRI 학술상)
  - From The Polymer Sciety of Korea

- 2018. 07. 12: 연구혁신상 **(과학기술정보통신부 장관상) (Research Innovation Award from Ministry of Science and ICT, Korea)**
  - Awarded at Nano Korea 2018

- 2018. 05. 11: **Young Scientist Award**
  - From 29th Intehrnational Conference on Molecular Electronics and Devices (ICME&D) **(Dr. Y. Lee)**

- 2018. 04. 05: **Advanced Materials Poster award**
  - From 2018 MRS Spring (**Student: H.-D. Lee**)

- 2018. 02. 09: **Best Paper Award**
  - From KIMS(Korea Institute of Materials Science) (**Ph.D. Y.-J. Lee**)

- 2018. 02. 07: **Best Poster Award**
  - From 2018 Korean Conference of Semiconductors(KCS) Poster Award(**Student: J. S. Kim)**
  - From 2018 Korean Conference of Semiconductors(KCS) Poster Award(**Student: S. H. Jo)**

- 2017. 12. 22: 2017, POSTECH 신진박사상
  - From the Pohang University of Science and Technology (POSTECH) (**Ph.D. Y.-J. Lee**)

- 2017. 12. 19: **Award of Excellence(2025 년, 대한민국을 이끌 100 대 기술과 주역, LED/OLED/레이저 기술)**
  - From Korean Academy of Science and Technology(한국과학기술한림원)

- 2017. 11. 20: **Best Paper Award**

- From Samsung Electro-Mechanics (**Ph.D. M.-H. Park**)

- 2017. 11. 01: **Best Essay Writing Award**
  - From the Inter-Academy Seoul Science Forum (IASSF) 2017 (**Ph.D. Y.-H. Kim**)

- 2017. 10. 24: **Chemical Science Award**
  - From the 9th Asian Conference on Organic Electronics (ACOE-2017) (**Ph.D. Y.-J. Lee**)

- 2017. 08. 18: 창의 선도 신진 연구자
  - From Seoul National University

- 2017. 05. 18: **Young Scientist Award**
  - From the 27th International Conference on Molecular Electronics and Devices (IC ME&D) (**Ph.D. Y.-H. Kim**)

- 2017. 04. 19: **Applied Physics Research Award (응용물리학술상)**
  - From Korean Physical Society (한국물리학회)

- 2017. 04. 18: **Best Poster Award**
  - 2017 Materials Research Society (MRS) Spring Meeting. (**Student: S.-J. Kwon**)

- 2017. 01. 05: **Best Paper Award of Year (2016)**
  - From Department of Materials Science and Engineering, POSTECH. (**Student: H. Kim**)

- 2016. 12. 15: Editorial Board Member of the Journal, **"FlatChem.",** Elsevier Science

- 2016. 11. 08: **Best Poster Award**
  - ENGE 2016 (International Conference on Electronic Materials and Nanotechnology for Green Environment) (**Student: M.-H. Park**)

- 2016. 07. 14: **관정 장학생**

- 관정 이종환 교육재단 (**Student: S.-K. Kim**)

- 2016. 05. 20: **Best Poster Award**
  - ME&D (The 27th International Conference on Molecular Electronics and Devices) (**Student: S. Ahn**)

- 2016. 05. 20: **Young Scientist Award**
  - from the 27th International Conference on Molecular Electronics and Devices (IC ME&D) (**Student: H. Cho**)

- 2016. 04. 15: **Best Poster Award**
  - from the 3th Korean Graphene Symposium (**Student: H.-K. Seo**)

- 2016. 01. 08: **Best Patent Award of Year (2015)**
  - From Department of Materials Science and Engineering, POSTECH. (**Student: M.-H. Park**)

- 2016. 01. 08: **Best Paper Award of Year (2015)**
  - From Department of Materials Science and Engineering, POSTECH. (**Student: M.-H. Park**)

- 2016. 01. 08: **Special Paper Award of Year (2015)**
  - From Department of Materials Science and Engineering, POSTECH. (**Student: M.-H. Park**)

- 2016. 01. 08: **Best Paper Award of Year (2015)**
  - From Department of Materials Science and Engineering, POSTECH. (**Student: H. Cho**)

- 2016. 01. 08: **Best Rising Ph.D Award (2015)**
  - From Department of Materials Science and Engineering, POSTECH. (**Student: S.-Y. Min**)

- 2015. 12. 01: **Best Poster Award, Nominee**
  - 2015 Materials Research Society (MRS) Fall Meeting. (**Student: S.-Y. Min**)

- 2015. 11. 06: **Best Poster Paper Award**
  - International workshop on Flexible & Printable Electronics (IWFPE 2015). **(Student: S.-H. Jeong)**

- 2015. 11. 01: **Best Paper Award, the 1st prize (Golden Prize)**
  - Samsung Electro-Mechanics 11th Best Paper Award. (**Student: S.-Y. Min**)

- 2015. 08. 18: **LG 연암 장학생**
  - LG 연암 문화재단 (**Student: S. Ahn**)

- 2015. 05. 30: **Encouragement Award**
  - Creative Convergence Korea 2015. (**Student: S.-J. Kwon**)

- 2015. 05. 01: **Excellent Presentation Award**
  - The Korean Society of Industrial and Engineering Chemistry (**Student: K.-G. Lim**)

- 2015. 04. 30: **Excellent Paper Award**
  - The Korea Physical Society. (**Student: H. Kim**)

- 2015. 04. 29: **Excellent Paper Award**
  - from SK Hynix (**Student: H. Cho**)

- 2015. 04. 29: **Excellent Paper Award**
  - from SK Hynix (**Student: Y.-H. Kim**)

- 2015. 04. 24: **Excellent Presentation Award**
  - The Korea Physical Society (**Student: K.-G. Lim**)

- 2015. 04. 09: **Mid-career Research Academy Award (중견학술상).**
  - Awarded at the spring meeting of The Polymer Society of Korea.

- 2015. 03. 27: **Best Poster Award**
  - The 2nd Korean Graphene Symposium. (**Student: S.-J. Kwon**)

- 2015. 03. 27: **Best Oral Presentation Award**
  - The 2nd Korean Graphene Symposium. (**Student: T.-H. Han**)

- 2015. 02. 13: **장근수 논문상**
  - From the President of Pohang University of Science and Technology (POSTECH), Korea. (**Student: T.-H. Han**)

- 2015. 02. 11: **Excellent Paper Award**
  - 2015 SAMSUNG HumanTech PAPER AWARD (**Student: T.-H. Han, M.-H. Park, S.-J. Kwon**)

- 2015. 01. 27: **Diamond Scholarship (2014)**
  - Dow Chemical Korea (**Student: Y.-H. Kim**)

- 2015. 01. 27: **Diamond Scholarship (2014)**
  - Dow Chemical Korea (**Student: M.-H. Park**)

- 2014. 12. 11: **Associate Member of the Korean Academy of Science and Technology** (한국과학기술한림원 준회원), **2015. 01~current.**

- 2014. 12. 02: **The 2014 Proud POSTECHIAN Award (자랑스러운 포스테키안상)**
  - From the President of Pohang University of Science and Technology (POSTECH), Korea.

- 2014. 07. 24: **Excellent National Research Achievement of the Year Award (국가연구개발 우수성과)**
  - Ministry of Science, ICT, and Future Planning, Korea

- 2014. 05. 16: **Best Poster Award**
  - 2014 ME&D (The 25th International Conference on Molecular Electronics and Devices) (**Student: Y.-H. Kim**)

- 2014. 05. 16: **Best Poster Award**

- 2014 ME&D (The 25th International Conference on Molecular Electronics and Devices) (**Student: Y. Lee**)

- 2014. 04. 24: **Poster Presentation Award**
  - 2014 Fall MRS Meeting (**Student: Y. Lee**)

- 2014. 04. 24: **Young Engineer Award**
  - Awarded from the Korean Institute of Metals and Materials

- 2014. 02. 12: **Excellent Paper Award**
  - 2014 SAMSUNG HumanTech PAPER AWARD (**Student: H.-K. Seo**)

- 2013. 11. 22: **1nside Edge Thesis Award, the 3rd prize**
  - Samsung Electro-Mechanics 9th '1nside Edge' International Thesis Competition (**Student: S.-Y. Min**)

- 2013. 10. 24: **EML-Springer Award**
  - Excellent "Electronic Materials Letters" Paper Award
  - Awarded from the Korean Institute of Metals and Materials

- 2013. 08. 31: **Excellent Poster Presentation Award**
  - 2013 KJF International Conference on Organic Materials for Electronics and Photonics (**Student: S.-Y. Min**)

- 2013. 08. 29: **Outstanding Poster Paper Award (Student: T.-H. Han, M.-H. Park)**
  - IMID (The 13th International Meeting on Information Display)

- 2013. 05. 16: **The Scientist of the Month Award** (July)(이달의 과학기술자상: 장관상)
  - Ministry of Science, ICT, and Future Planning, Korea

- 2013. 05. 16: **Best Poster Award**
  - 2013 ME&D (The 24th International Conference on Molecular Electronics and Devices) (**Student: S.-Y. Min**)

- 2013. 02. 01: Editorial Board Member of the Journal, **"Electronics Materials Letters",** Springer, Korea.

- 2012. 12. 26: **Best Patent Award of Year (2012)**
  - From Department of Materials Science and Engineering, POSTECH. (**Student: M.-H. Park**)

- 2012. 12. 20: **Best Poster Award**
  - A-COE 2012 (The 4th Asian Conference on Organic Electronics) (**Student: K.-G. Lim**)

- 2012. 05. 31: **Best Oral Presentation Award**
  - 2nd International Conference on Electrospinning 2012 (**Student: S.-Y. Min**)

- 2012. 05. 20: **Best Poster Award**
  - 2012 ME&D (The 23nd International Conference on Molecular Electronics and Devices) (**Student: H.-K. Seo**)

- 2012. 05. 20: **Young Scientist Award**
  - 2012 ME&D (The 23st International Conference on Molecular Electronics and Devices) (**Student: T.-H. Han**)

- 2012. 03. 29: Excellent Researcher Award (우수연구원상), Samsung Mobile Display (Student: T.-H. Han)

- **2011. 10. 04: KIDS Awards, Sponsored by LG Display.**

- 2011.08: Selected for the 2012 Edition of Marquis Who's Who in the World.

- 2011. 05. 20: **Best Poster Award**
  - 2011 ME&D (The 22nd International Conference on Molecular Electronics and Devices) (**Student: T.-S. Kim**)

- 2011. 01. 18: Editorial Board Member of the Journal, **"Soft Nanoscience Letters",** Scientific Research Publishing, USA.

- **2010. 12. 04: Member of the "Global Young Academy".**

- 2010. 06. 14: **The grand (top first) prize** among **Undergraduate Research Programs (URP)** funded by Korea Foundation for the Advancement of Science & Creativity**)** (**Students: M.-R. Choi, S.-H. Woo**)

- 2010. 05. 20: **Best Poster Award**
  - 2010 ME&D (The 21st International Conference on Molecular Electronics and Devices) (**Student: T.-H. Han**)

- 2010. 05. 20: **Young Scientist Award**
  - 2010 ME&D (The 21st International Conference on Molecular Electronics and Devices) (**Student: M.-R. Choi**)

- 2010. 01. 01: Editorial Board Member of the Journal**, "Polymer Science and Technology",** The Polymer Society of Korea.

- 2009. 10. 14: **Outstanding Poster Paper Award (Student: M.-R. Choi)**
  - IMID (The 9th International Meeting on Information Display)

- 2008. 02.11: **Korea Young Scientist Award from Korea President.**
  (젊은과학자상:대통령상)

- 2007. 10. 11: **PSK-Wiley Young Scientist Award**.
  - Awarded at the fall meeting of The Polymer Society of Korea.

- 2007. 08. 30: **Nano Research Innovation Award** (Chief of Committee and Relevant Organization Award).
  - Awarded at NANO KOREA 2007 (International Nanotech Symposium & Exhibition).

- 2007. 06: Editorial Board Member of the journals "**The Open Materials Science Journal (OMS)", "Open Materials Science Letters", and "Open Material Science Reviews", Bentham Science Publishers, Ltd.**

- 2006. 08. 24: **Merck Award**.
  - (Outstanding Scientific Contribution to the Display Technology)
  - Featured in Electronic Times.
  - Ranked on SAIT Top 10 News in 2006.

- 2005. 12. 15: **Samsung Best Paper Award.**
  - (Outstanding Research Paper Award in Samsung Technical Conference'2005 -Samsung Group's Annual Research Paper Competition).

- 1997. 3-2002. 2: Full National Grantee, KAIST.

- 2001. 3: **Amcheon Outstanding Paper Award**.

- 2000. 1: KAIST Alumni Association Scholarship.

- 1993. 3 - 2007. 2: Full National Grantee, KAIST.
  - Editorial Board Member of "Electronic Materials Letters", Springer, 2013. 01~current.

Professional Academic Activities

- ICAMD 2023, Ramada Plaza Jeju Hotel, Jeju Korea, December 04-08, 2023, **Program Committee**

- SPIE Optics+Photonics 2023, Conv. Ctr. Room 7B, San Diego, California, United States, August 20-24, 2023, **Chair of the Conference**

- Senior member of SPIE, 2023~current

- Materials Research Society (MRS) spring (2023), **Meeting Chair**, 2023

- International Advisory Board Member for Querrey-Simpson Institute for Bioelectronics at Northwestern 2023.04~current
- International Advisory Board Member of the Journal, “Advanced Materials.”, Wiley-VCH. 2020.11~current
- Regular Member of the Korean Academy of Science and Technology (한국과학기술한림원 정회원), 2021. 01~current
- International Advisory Board Member of the Journal, “Advanced Materials.”, Wiley-VCH. 2020.11~current
- Editorial Board Member of the Journal, “Nano Convergence.”, Springer, 2020.07~current
- MRS fellow, 2020~current
- 2020 SPIE Optics + Photonics, Committee Member, 20204
- Materials Research Society (MRS) fall (2020), Session Organizer, 2020
- Materials Research Society (MRS) spring (2020), Session Organizer, 2020
- International Meeting on Information Display (IMID) (The 2nd Largest International Display Conference in the World, Average participants per year: 2,000) organized by The Korea Information Display Society(한국정보디스플레이학회 주최), 2015-2020, **Program Committee Members and Chair of Symposiums**
- Korea Flexible & Printed Electronics Society (한국유연인쇄전자학회), International Cooperation Director (**국제협력위원장**), 2010-현재
- **Board of trustees (평의원)**: The Polymer Society of Korea (한국고분자학회), The Korea Information Display Society, and Korea Flexible & Printed Electronics Society
- Volume Organizer for 2020 Materials Research Society (MRS) Bulletin Journal, 2018.04.24-2020.12.31

- The International Conference on Advanced Materials and Devices (ICAMD 2019) organized by Korea Physical Society(한국물리학회 주최), **Program Committee Member and Vice-Secretary of Program Committee**

- The 5th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2018), Korean Institute of Metals and Materials(대한금속재료학회 주최), Jeju, Korea, November 14, 2018, **Program Committee Member and Lead Program Oranizer**

- International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019, **Chair of the Conference**

- 2019 Material Research Society (MRS) Fall Meeting & Exhibit, Boston, Massachusetts, United States, December 1-6, 2019, Lead Symposium Orgaizer (EN10: Emerging Light-Emitting Materials and Devices—Perovskite Emitters, Quantum Dots and Other Low-Dimensional Nanoscale Emitters)

- 2018 Material Research Society (MRS) Spring Meeting & Exhibit, Phoenix, USA, April 2, 2018, Lead Symposium Organizer (EP05: Emerging Light-Emitting Materials and Devices: Halide Perovskite and Low-Dimensional Nanoscale Emitters)

- **SPIE Services (SPIE Optics and Photonics, San Diego, USA)**

- Program Committee Member: Organic and Hybrid Light-Emitting Materials and Devices (OP20P, OP19P; 2019-2020). Organic Light-Emitting Materials and Devices (OP18P; 2018), Hybrid Memory Devices and Printed Circuits (OP17P; 2017), Organic Light-Emitting Materials and Devices (OP17P, 2017), Printed Memory and Circuit II (OP16P; 2016)

- Symposium Session Chair: Perovskite I and Perovskite II in OP19P (2019), Device Stability and Device Physics I in OP17P (2017), Solid State Lighting II and Solid State Lighting III in OP14P (2014)

- 2016 International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), **Program Committee Member and Lead Program Organizer**

- The 24-26th Korean Conference on Semiconductors (제 24,25,26 회 한국반도체 학술대회), **Chair of Division of Nano Science & Technology**, Korea, 2016-2019
- The 23rd Korean Conference on Semiconductors (제 23 회 한국반도체 학술대회), Division of Nano Science & Technology, **Program Committee Member** (실무위원), Korea, February 22-24, 2016
- The 27th International Conference on Molecular Electronics and Devices (ME&D2016), Seoul National University, Korea, May 19-20, 2016, **Organizing Committee Member**
- The 26th International Conference on Molecular Electronics and Devices (ME&D2015), Seoul National University, Korea, May 21-22, 2015, **Organizing Committee Member**
- EMN Meeting on Optoelectronics, Beijing, China, April 27-30, 2015, **International Advisory Board Member**
- The 14th International Meeting on Information Display 2014, **Program Committee Member**, August 26-29, 2014 / Daegu EXCO, Korea
- The 2-7th Korean Graphene Symposium. Organizing Committee Member, LOTTE Resort Buyeo (2015-2019), Online digital forum (2020), Korea
- Associate Member of the Korean Academy of Science and Technology (한국과학기술한림원 준회원), 2015. 01~current
- Editor of "Electronic Materials Letters (I/F=1.894)", Springer, 2014. 11~current
- The Polymer Society of Korea, a board of trustees (19th), 한국고분자 학회 제 19 대-25 대 평의원, 2014.1.1~Current
- '2014 International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2014), November 16-19, 2014, **Symposium Organizer and Academic Committee Member**
- The International Conference on Solid State Devices and Materials (SSDM2014), September 8-11, 2014, **Program Committee Member**

- The 25th International Conference on Molecular Electronics and Devices (ME&D2014), Hanyang University, Korea, May 15-16, 2014, **Organizing Committee Member**
- 한국그래핀연구회 실무간사, 2012.01-Current
- The 1st Korean Graphene Symposium. Organizing Committee Member, April 3-4, 2014 / LOTTE Resort Buyeo, Korea
- Editorial Board Member of "Electronic Materials Letters", Springer, 2013. 01~current
- Editorial Board Member of "Electronic Materials Letters", The Polymer Society of Korea, 2010. 01~2011.12
- Editorial Board Member of "The Open Materials Science Journal", Bentham Science Publisher Ltd, 2007. 06~current
- "Global Young Academy", **Membership in the Global Young Academy** (2010.12-current)
- The 8th International Conference on Advanced Materials and Devices, December 11-13, 2013, **Program Committee Member**
- 2012 International Conference on Flexible and Printed Electronics, November 9-10, 2012, **International Sub committee Member**
- 2013 International Conference on Flexible and Printed Electronics: **Program Committee Member (**2013.09.11-13**)**
- 2nd International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2012), September 17, 2012, **Program Committee Member**
- 12th International Meeting on Information Display (IMID), August 28-31, 2012, **Organizer**
- 2012 International Union of Materials Research Society-International Conference in Asia 2012 (IUMRS-ICA 2012): Symposium Organizer and Chair in "Flexible Electronics and Displays: Organic and Inorganic Materials" Symposium (2012.8)

- The 7th International Conference on Advanced Materials and Devices, December 7-9, 2011, **Program Committee Member**
- 2011 KJF International Conference on Organic Materials for Electronics and Photonics: Organizing Committee (2011.1~2011.8)
- International Conference on Molecular Electronics and Devices: Organizing Committee (2010.1~2012.12)
- 2009 International Conference on Flexible and Printed Electronics: **Program Committee Member (**2009.11.11-13**)**
- The Korean Institute of Metals and Materials, September 6-8, 2012, **Sub committee Member**
- The Korean Institute of Metals and Materials Fall Symposium on Fusion Materials and Science Division, Yonsei University, November 9-10, 2012, **Symposium Session Organizer**
- Editorial Board Member of the Journal, **"Soft Nanoscience Letters",** Scientific Research Publishing, USA, 2011.01.18~current
- Journal Referee for Science (I/F= 56.9)
- Journal Referee for Nature (I/F= 64.8)
- Journal Referee for Nature Materials (I/F= 41.2)
- Journal Referee for Nature Nanotechnology (I/F= 38.3)
- Journal Referee for Nature Photonics (I/F= 35)
- Journal Referee for Nature Electronics (I/F= 34.3)
- Journal Referee for Joule (I/F= 39.8)
- Journal Referee for Chem (I/F= 23.5)
- Journal Referee for Nature Communications (I/F= 16.6)

- Journal Referee for Advanced Materials (I/F=29.4)
- Journal Referee for Materials Today (I/F=24.2)
- Journal Referee for Nano Letters (I/F=10.8)
- Journal Referee for ACS Nano (I/F=17.1)
- Journal Referee for Materials Horizon (I/F=13.3)
- Journal Referee for Advanced Energy Materials (I/F=27.8)
- Journal Referee for Angewandte Chemie International Edition (I/F=16.6)
- Journal Referee for Advanced Materials Interfaces (I/F= 5.4)
- Journal Referee for Advanced Optical Materials (I/F= 9)
- Journal Referee for Advanced Electronic Materials (I/F= 6.2)
- Journal Referee for Energy and Environmental Science (I/F=32.5)
- Journal Referee for Journal of the American Chemical Society (I/F=15)
- Journal Referee for Advanced Functional Materials (I/F=19)
- Journal Referee for Nano Energy (I/F=17.6)
- Journal Referee for Chemistry of Materials (I/F=8.6)
- Journal Referee for Small (I/F=13.3)
- Journal Referee for ChemSusChem (I/F=8.4)
- Journal Referee for Laser & Photonics Reviews (I/F=11)
- Journal Referee for Journal of Materials Chemistry C (I/F=6.4)
- Journal Referee for Journal of Physical Chemistry Letters (I/F=5.7)
- Journal Referee for ACS Applied Materials & Interface (I/F=9.5)

- Journal Referee for Solar Energy Materials & Solar Cells (I/F=6.9)
- Journal Referee for Journal of Physical Chemistry C (I/F=3.7)
- Journal Referee for Macromolecular Rapid Communications (I/F=4.6)
- Journal Referee for Macromolecules (I/F= 5.5)
- Journal Referee for Polymers (I/F=5)
- Journal Referee for Organic Electronics (I/F=3.2)
- Journal Referee for ChemPhysChem (I/F=2.9)
- Journal Referee for RSC Advances (I/F=3.9)
- Journal Referee for Macromolecular Materials and Engineering (I/F=3.9)
- Journal Referee for Synthetic Metals (I/F=4.4)
- Journal Referee for Solid State Communications (I/F=2.1)
- Journal Referee for Applied Surface Science (I/F=6.7)
- Journal Referee for Physica Status Solidi A (I/F=2.8)
- Member, Materials Research Society
- Member, SPIE
- Member (Lifetime), The Polymer Society of Korea
- Member (Lifetime), The Korean Institute of Chemical Engineers
- Member (Lifetime), The Korean Institute of Metals and Materials
- Member, The Korean Chemical Society
- Member of The Korean Physical Society and Committee Member in Applied Physics Division of The Korean Physical Society

Research Highlights

1. "The Effect of Different Heat Treatments on the Luminescence Efficiency of Polymer Light-Emitting Diodes", **T.-W. Lee***, O O. Park*
   Advanced Materials, **12**, 801-804 (2000)
   Primary author, SCI Impact Factor = 29.4
   Publication date: 2000.06.02.
   Research field: Organic Light-Emitting Diodes

2. "Low-Threshold Amplified Spontaneous Emission in a Fluorene-Based Liquid Crystalline Polymer Blend", Y. C. Kim*, **T.-W. Lee***, O O. Park, C. Y. Kim, H. N. Cho
   Advanced Materials, **13**, 646-649 (2001)
   Co-author, SCI Impact Factor = 29.4
   Publication date: 2001.05.02.
   Research field: Organic Lasers

3. "Polymer Light-emitting Energy Well Devices Using Single-Ion Conductors" **T.-W. Lee*,** O O. Park*
   Advanced Materials, **13**, 1274-1278 (2001)
   Primary author, SCI Impact Factor = 29.4
   Publication date: 2001.08.16.
   Research field: Organic Light-Emitting Diodes

4. "Organic Light-Emitting Didoes Formed by Soft Contact Lamination" **T.-W. Lee***, J. Zaumseil, Z. Bao, J. W. P. Hsu, J. A. Rogers
   Proceedings of the National Academy of Sciences of the United States of America (PNAS), **101**, 429-433 (2004)
   Primary and corresponding author, SCI Impact Factor = 11.1
   Publication date: 2004.01.13.
   Research field: Soft Lithography and Organic Light-Emitting Diodes

5. "High-Efficiency Soft-Contact-Laminated Polymer Light-Emitting Devices with patterned electrodes", **T.-W. Lee***, J. Zaumseil, Z. Bao, J. W. P. Hsu, J. A. Rogers
   Advanced Materials, **16**, 2040-2045 (2004)
   Primary and corresponding author, SCI Impact Factor = 29.4
   Publication date: 2004.11.18.
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6. "Pattern Transfer Fidelity in Soft Lithography: the Role of Pattern Density and Aspect Ratio", **T.-W. Lee***, O. Mitrofanov, J. W. P. Hsu
   Advanced Functional Materials, **15**, 1683-1688 (2005)
   Primary and corresponding author, SCI Impact Factor = 19
   Publication date: 2005.10.01.
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7. "Soft-contact optical lithography using transparent elastomeric stamps and application to nanopatterned organic light-emitting devices", **T.-W. Lee***, S. Jeon, J. Maria, J. Zaumseil, J.W.P. Hsu, J. A. Rogers
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8. "All Solution Processed N-type Organic Transistor using a Spinning Metal Process", **T.-W. Lee***, Y. Byun, B. Koo, I.-N. Kang, Y.-Y. Lyu, C. H. Lee, L. Pu, S. Y. Lee
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Research field: Organic Thin Film Transistor

9. "Self-Organized Gradient Hole Injection to Improve the Performance of Polymer Electroluminescent Devices", **T.-W. Lee***, Y. Chung, O. Kwon, J.-J. Park
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10 "Photo-Curable Organic Gate Insulator for Low Temperature and Solution Process of High Field-Effect-Mobility Organic Transistors.", **T.-W. Lee***, J. H. Shin, I.-N. Kang, S. Y. Lee
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11. "Control of Surface Composition of Conducting Polymer Complex Films for tuning the Work Function" **T.-W. Lee***, Y. Chung
Advanced Functional Materials, **18**, 2246-2252 (2008)
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12. "Characteristics of Solution-Processed Small-Molecule Organic Films and Light-Emitting Diodes Compared with their Vacuum-Deposited Counterparts", **T.-W. Lee***, T. Noh, H.-W. Shin, O. Kwon, J.-J. Park*, B.-K. Choi, M.-S. Kim, D. W. Shin, Y.-R. Kim,
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Primary and corresponding author, SCI Impact Factor = 19
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13. “Soluble Self-Doped Conducting Polymer Compositions with Tunable Work Function as Hole Injection/Extraction Layers in Organic Optoelectronics” M.-R. Choi, T.-H. Han, K.-G. Lim, S.-H. Woo, D. H. Huh, and **T.-W. Lee*,**
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Corresponding author, SCI Impact Factor = 16.6
Publication date: 2011.07.04.
Research field: Organic Light-Emitting Diodes and Organic Photovoltaic Cells.

14. “Extremely efficient flexible organic light-emitting diodes with modified graphene anodes", T. H. Han, Y. Lee, M.-R. Choi, S. H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***
Nature Photonics, **6**, 105-110 (2012)
Highlighted in Nature Photonics: News and Views, "Organic light-emitting diodes: Non-oxide boost" Y. Zhu and J. M. Tour,
Nature Photonics, **6**, 72-73 (2012)
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T.-H. Han, M.-R. Choi, S.-H. Woo, S.-Y. Min, C.-L. Lee, and **T.-W. Lee***,
Advanced Materials, **24**, 1487-1493 (2012)
Corresponding author, SCI Impact Factor = 29.4
Publication date: 2012.03.15.

16. "Large-scale organic nanowire lithography and electronics"
S.-Y. Min, T.-S. Kim, B. J. Kim, H. Cho, Y.-Y. Noh, H. Yang, J. H. Cho, and **T.-W. Lee***
Nature Communications, **4**, 1773 (2013)
Corresponding author, SCI Impact Factor = 16.6
Publication date: 2013.04.30.

17. “Charge transport and morphology of pentacene films confined in nano-patterned region”,
T.-S. Kim, S. Kim, M. Jang, H. Yang, **T.-W. Lee***
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18. "Rapid Fabrication of Designable Large-Scale-Aligned Graphene Nanoribbons by Electrohydrodynamic Nanowire Lithography", W. Xu, H.-K. Seo, S.-Y. Min, H. Cho, T.-S. Lim, C.-y. Oh, Y. Lee, **T.-W. Lee***
Advanced Materials, **26**, 3459-3464 (2014)
SCI Impact Factor = 29.4
Publication date: 2014.06.04.

19. "Electroluminescence from Graphene Quantum Dots Prepared by Amidative Cutting of Tattered Graphite", W. Kwon+, Y.-H. Kim+, C.-L. Lee, M. Lee, H. C. Choi, **T.-W. Lee***, S.-W. Rhee*
Nano Letters, **14**, 1306-1311 (2014) (+: equally contributed to this work)
SCI Impact Factor = 10.8
Publication date: 2014.02.04.

20. "Polyethylene Imine as an Ideal Interlayer for Highly Efficient Inverted Polymer Light-Emitting Diodes", Y.-H. Kim, T.-H. Han, H. Cho, S.-Y. Min, C.-L. Lee, and **T.-W. Lee***
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21. "Boosting the power conversion efficiency of perovskite solar cells using self-organized polymeric hole extraction layers with high work function", K.-G. Lim, H.-B. Kim, J. Jeong, H. Kim, J. Y. Kim*, **T.-W. Lee***,
Advanced Materials, **26**, 6461-6466 (2014)
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Publication data: 2014.10.08.

22. "Individually Position-Addressable Metal Nanofiber Electrodes for Large-area Electronics", Y. Lee, T. S. Kim, S.-Y. Min, W. Xu, S.-H. Jeong, H.-K. Seo, **T.-W. Lee***,
Advanced Materials, **26**, 8010-8016 (2014) (Inside Back Cover)
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23. "Multi-colored Organic/Inorganic Hybrid Perovskite Light-emitting Diodes", Y.-H. Kim+, H. Cho^{+}, J. H. Heo^{+}, T.-S. Kim, N. Myoung, C.-L. Lee, S. H. Im,* and **T.-W. Lee*** (+: equally contributed to this work)
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24. "Controllable n-type doping on CVD-grown single- and double-layer graphene mixture", W. Xu, L. Wang, Y. Liu, S. Thomas, H.-K. Seo, K.-I. Kim, K. S. Kim*, **T.-W. Lee***,
Advanced Materials, **27**, 1619-1623 (2015)
SCI Impact Factor = 29.4
Publication data: 2015.01.21.

25. "Flexible Lamination Encapsulation", M.-H. Park, J.-Y. Kim, T.-H. Han, T.-S. Kim, H. Kim, **T.-W. Lee***,
Advanced Materials, **27**, 4308-4314 (Inside Cover)
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Publication date: 2015.06.23.

26. "Overcoming the electroluminescence efficiency limitations of perovskite light-emitting diodes", H. Cho+, S.-H. Jeong+, M.-H. Park+, Y.-H. Kim, C. Wolf, C.-L. Lee, J. H. Heo, A. Sadhanala, N. S. Myoung, S. Yoo, S. H. Im, R. H. Friend and **T.-W. Lee***, (+: equally contributed to this work)
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27. "Simple, inexpensive and rapid approach to fabricate cross-shaped memristors using inorganic-nanowire-digital- alignment technique and a one-step reduction process", W. Xu+, Y. Lee+, S.-Y. Min, C. Park, and **T.-W. Lee***, (+: equally contributed to this work)
Advanced Materials, **28**, 527-532 (2015)
Corresponding author, SCI Impact Factor = 29.4
Publication date: 2015.11.20.

28. "Highly Efficient, Simplified, Solution-Processed Thermally Activated Delayed-Fluorescence Organic Light-Emitting Diodes", Y.-H. Kim, C. Wolf, H. Cho, S.-H. Jeong, and **T.-W. Lee***
Advanced Materials, **28**, 734-741 (2016)
SCI Impact factor = 29.4
Publication date: 2015.11.30.

29. "Planar Heterojunction Organometal Halide Perovskite Solar Cells: Role of Interfacial Layers", H. Kim^{+}, K.-G. Lim^{+}, and **T.-W. Lee***
Energy & Environmental Science, **9**, 12-30 (2016) (Inside Front Cover)
(+: equally contributed to this work)
SCI Impact Factor = 32.5
Publication date: 2015.10.13.

30. "Universal Energy Level Tailoring of Self-Organized Hole Extraction Layers in Organic Solar Cells and Organic-inorganic Hybrid Perovskite Solar Cells"
K.-G. Lim, S. Ahn, Y.-H. Kim, Y. B. Qi, and **T.-W. Lee***
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31. "Versatile p-Type Chemical Doping to Achieve Ideal Flexible Graphene Electrodes"
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(+: equally contributed to this work)
Angew. Chem. Int. Ed., **55**, 6197-6201 (2016)
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Publication Date: 2016.04.13.

32. "On-fabrication solid-state N-doping of graphene by an electron transporting metal oxide layer for efficient inverted organic solar cells", H. Kim, J. Byun, S.-H. Bae, T. Ahmed, J.-X. Zhu, S.-J. Kwon, Y. Lee, S.-Y. Min, C. Wolf, H.-K. Seo, J.-H. Ahn, **T.-W. Lee***

Advanced Energy Materials, **6**, 1600172 (2016)
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33. "Organometal Halide Perovskite Artificial Synapses", W. Xu, H. Cho, Y.-H. Kim, Y.-T. Kim, C. Wolf, C.-G. Park, **T.-W. Lee***,
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34. "Synergetic electrode architecture for efficient graphene-based flexible organic light emitting diodes", J. Lee+, T.-H. Han+, M.-H. Park+, D. Y. Jung, J. Seo, H.-K. Seo, H. Cho, E. Kim, J. Chung, S.-Y. Choi, T.-S. Kim, **T.-W. Lee***, S. Yoo*, (+: equally contributed to this work)
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35. "Efficient Visible Quasi-2D Perovskite Light-Emitting Diodes" J. Byun+, H. Cho+, C. Wolf, M. Jang, A. Sadhanala, R. H. Friend, H. Yang, **T.-W. Lee***
(+: equally contributed to this work)
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(+: equally contributed to this work)
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Publication date: 2016.10.28.

38. "Efficient Flexible Organic/Inorganic Hybrid Perovskite Light-Emitting Diodes Based on Graphene Anode", H.-K. Seo+, H. Kim+, J. Lee, M.-H. Park, S.-H. Jeong, Y.-H Kim, S.-J. Kwon, T.-H. Han, S. Yoo, **T.-W. Lee***.
(+: equally contributed to this work)
Advanced Materials, **29**, 1605587 (2017)
Corresponding author, SCI Impact Factor = 29.4

Publication date: 2017.01.27.

39. "Room-Temperature-Processable Wire-Templated Nanoelectrodes for Flexible and Transparent All-Wire Electronics" S.-Y. Min, Y. Lee, S. H. Kim, C. Park and **T.-W. Lee***
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SCI Impact Factor = 17.1
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40. "Organic light emitting board for dynamic interactive display" E.-H. Kim, S.H. Cho, J.H. Lee, B. Jeong, R.H. Kim, S. Yu, **T.-W. Lee***, W. Shim, C. Park,
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41. "High Efficiency Perovskite Light-Emitting Diodes of Ligand-Engineered Colloidal Formamidinium Lead Bromide Nanoparticles" Y.-H. Kim, G.-H. Lee, Y.-T. Kim, C. Wolf, H. J. Yune, W. Kwon, C. G. Park and **T.-W. Lee***
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46. "Deformable Organic Nanowire Field-Effect Transistors" Y. Lee+, J.Y. Oh+, T.R. Kim, X. Gu, Y. Kim, G.-J. N. Wang, H.-C. Wu, R. Pfattner, J. W. F. To, T. Katsumata, D. Son, J. Kang, J. R. Matthews, W. Niu, M. He, R. Sinclair, Y. Cui, J. B.-H. Tok, **T.-W. Lee***, Z. Bao*
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77. [뉴시스] 서울대-스탠포드대 공동 연구팀, 신경손상 난제 해결…네이쳐 등재, August 16, 2022

78. [한겨레] 척수 다친 쥐, ‘인공 신경’ 달고 달렸다…마비 환자에 기회 될까, August 16, 2022

79. [KBS News] ‘다리 마비’ 쥐 뛰게 했다…서울대 ‘인공 신경’ 연구 네이처지 등재, August 16, 2022

80. [헤럴드경제] 신경 마비된 쥐 움직인 ‘인공 신경’…척수손상 해법 실마리 찾다, August 16, 2022

81. [국민일보] 척수 손상 쥐, 인공신경 달자 뛰었다…마비 환자 회복 길 열려, August 16, 2022

82. [중앙일보] 서울대·스탠포드 공동 연구진, 신경손상 치료 단서 발견…네이처 등재, August 16, 2022

83. [연합뉴스] 서울대·스탠퍼드대 공동 연구진, 신경손상 치료 단서 발견, August 16, 2022

84. [메디컬투데이] “신경 마비된 쥐가 다시 걸었다”…인류 난제 ‘신경 손상’ 치료 단서 발견, August 17, 2022

85. [한국강사신문] 서울대학교 이태우 교수팀, 척수 손상 동물 움직임 구현으로 인류 과학난제 해결 실마리 제공, August 17, 2022

86. [브레인미디어] 척수 손상으로 신경 마비된 쥐 걸었다!...뉴로모픽 인공 신경 개발, August 18, 2022

87. [IT 정보보털] 서울대 재료공학부 이태우 교수 연구팀, 수명 획기적으로 개선한 최고 효율 페로브스카이트 발광 소자 기술로 글로벌 디스플레이 지형 바꾼다, November 10, 2022

88. [인터넷핫뉴스] 서울대 재료공학부 이태우 교수 연구팀, 수명 획기적으로 개선한 최고 효율 페로브스카이트 발광 소자 기술로 글로벌 디스플레이 지형 바꾼다, November 10, 2022

89. [한국경제] 서울대 연구진, 고효율 페로브스카이트 발광소자 기술 개발, November 10, 2022

90. [KoreaJoongAngDaily] SNU research team develops 'world’s most advanced' perovskite light-emitting diode, November 10, 2022

91. [연합뉴스] 서울대 연구진, 고효율 페로브스카이트 발광소자 기술 개발, November 10, 2022

92. [서울신문] 차세대 디스플레이 지형 바꿀 기술 개발, November 10, 2022

93. [매일경제] 서울대 이태우 교수 연구팀 효율 늘린 '발광소자' 개발, November 10, 2022

94. [노컷뉴스] 서울대 이태우 교수팀, 차세대 디스플레이 소재 상용화 앞당겨, November 10, 2022

95. [뉴시스] 서울대 이태우 교수팀, 고효율 페로브스카이트 발광 소자 기술 개발, November 10, 2022

96. [뉴스 1] 서울대 이태우 교수팀, '세계 최고' 태양광 발전 효율 기술 개발, November 10, 2022

97. [세계일보] 서울대 이태우 교수 연구팀, 고효율·수명 발광기술 개발, November 11, 2022

98. [동아사이언스] 차세대 디스플레이 소자 '페로브스카이트' 상용화, 한국이 이끈다, November 11, 2022

99. [동아일보] 밝기, 수명 획기적 개선…‘차세대 디스플레이 발광소자’ 한국이 이끈다, November 11, 2022

100. [헤럴드경제] 서울대 연구진, '세계 최고 효율' 태양광 발전 기술 개발, November 12, 2022

101. [에듀동아] 서울대 공대 재료공학부 이태우 교수팀, 차세대 페로브스카이트 나노입자 태양전지 개발, July 26, 2023

102. [연합뉴스] 제 19 회 경암상에 임현진·심흥선·주영석·이태우 교수, September 18, 2023

103. [노컷뉴스] 제 19 회 경암상 수상자 선정…과학분야 모두 '토종 박사', September 18, 2023

104. [부산일보] 임현진·심흥선·주영석·이태우 교수, 제 19 회 경암상 수상, September 18, 2023

105. [국제신문] 경암교육문화재단, 제 19 회 경암상 수상자 4 명 선정, September 19, 2023

106. [메트로신문] 경암교육문화재단, 제 19 회 '경암상' 시상식 개최, November 3, 2023

107. [아주경제] 경암교육문화재단, 2023 경암상 수장자 '시상', November 3, 2023

108. [한국대학신문] "탁월한 학문적 업적"… 경암교육문화재단 '경암상' 시상식, November 3, 2023

109. [뉴스 1] 서울대 '고효율 페로브스카이트 발광소자' 개발…차세대 디스플레이 기대, January 16, 2024

110. [뉴시스] 韓 연구진, 신소재 활용 발광소자 세계 최초 개발…수명 3000 배 향상, January 16, 2024

111. [아이뉴스 24] [지금은 과학] 발광효율 37%…고효율·장수명 탠덤 발광소자 개발, January 16, 2024

112. [헤럴드경제] "1→5596 시간 수명 늘렸다" 세계 최초 '페로브스카이트 디스플레이' 상용화 도전, January 16, 2024

113. [대한경제] 과기정통부, 고효율 탠덤 페로브스카이트 발광소자 세계 최초 개발, January 16, 2024

114. [글로벌에픽] 과기정통부, 세계 최초 고효율 탠덤 페로브스카이트 발광소자 개발 성공, January 16, 2024

115. [파이낸셜포스트] [특징주] 필옵틱스, 세계 첫 '탠덤 페로브스카이트' 활용 발광소자 수명 3 천배↑…탠덤 페로브스카이트 장비 개발 조명, January 17, 2024

116. [토큰포스트] 과기정통부, 세계 최초로 고효율 탠덤 페로브스카이트 발광소자 개발 성공, January 17, 2024

117. [헬로티] 국내 연구진, 고효율 탠덤 페로브스카이트 발광소자 개발 성공, January 18, 2024

118. [산업일보] 세계 최초 고효율 탠덤 페로브스카이트 발광소자 개발, January 22, 2024

Recent Invited Talks

1. “Organic Light-Emitting Diodes Formed by Soft Contact Lamination”, Seoul National University, Seoul, Korea, August 13, 2004 (Invited).

2. “Unconventional Approaches to build OLEDs”, OLED Device Lectures, Kyung Hee University, Seoul, Korea. August 18, 2004 (Invited).

3. "Top Electrode Engineering in Organic Light-Emitting Devices Formed by Soft Contact Lamination”, Asia Display/IMID ’04 The 24th International Display Research Conference in conjunction with The 4th International Meeting on Information Display”, 19.3, Daegu, Korea, August 23-27, 2004 (Invited talk at international conference)

4. “Two-Photon Lithography and its Applications”, Korea Advanced Institute of Science and Technology, Daejeon, Korea, December 27, 2004 (Invited)

5. "Cathode Engineering and Failure Mode Analysis in Polymer Light Emitting-Diodes”, The 10th Optoelectronics and Communications Conference, 8A1-3, Seoul, Korea, July 4-8, 2005 (Invited talk at International Conference)

6. "Recent Progress of Printable OLED Materials”, International Meeting on Information Display (IMID) ‘2005, 35.2, Seoul, Korea, July 19-23, 2005 (Invited talk at International Conference).

7. "Polymers for Information Technologies and Nano-Technologies”, Sungkyunkwan University, Suwon, Korea, March 14, 2006 (Invited).

8. “Polymer organic light-emitting diodes with high efficiency and long lifetime”, 1st OLED Summer School, Pusan National University, July 12, 2006 (Invited).

9. "Solution processed high-performance organic thin film transistors”, SPIE 2006, San Diego, California, USA, August 13-17, 2006 (Invited talk at International Conference).

10. "Self-organized gradient hole injection layer for polymer light-emitting diodes”, KIChE 2006 Fall, Korea University, Seoul, Korea, October 27-28, 2006.

11. "Tuning the surface work function of spin-cast conducting polymer complex films by vertical phase segregation”, The Meeting of the Polymer Society of Korea, Daejeon, Korea, April 10-11, 2008

12. "Unconventional fabrication of organic devices for flexible display applications”, The Meeting of the Polymer Society of Korea, Daejeon, Korea, April 10-11, 2008

13. “Control of the Surface Composition of a Conducting-Polymer Complex”, The 8th International Discussion & Conference on Nano Interface Controlled Electronic Devices (IDC-NICE 2008), Pohang, Korea, Oct 14-16, 2008

14. “Interfacial layer for high efficiency organic bulkheterojunction photovoltaic cells”, UNSW-POSTECH Workshop on Energy and Materials, Pohang, Korea, June 25, 2008

15. “Ubiquitous Printed Flexible Electronics and Displays”, Korea Graphic Arts Communication Society Meeting, Seoul, Korea, May 22, 2009

16. “Distinctive Nature of Solution-processed Small Molecule Organic Light-Emitting Diodes Compared with Their Vacuum-Deposited Counterparts”, 2009 International Polymer Materials Symposium, Hangzhou, China, July 13-17, 2009

17. “Ubiquitous printed flexible organic electronics”, 2009 Printed Electronics Workshop 1, Suncheon, Korea, July 30, 2009

18. “Interfacial engineering for organic bulkheterojunction photovoltaic cells”, The Korean Institute of Metals and Materials Meeting, Pohang, Korea, August 7, 2009

19. “Solution-processed organic light-emitting diodes for flexible displays”, The First International Symposium of the WCU Flexible Signage Program, Daejeon, Korea, August 27, 2009

20. “Control of charge extraction in organic bulk heterojunction solar cells”, International Workshop on Emerging Materials & Active Polymer Patterning, Gyeongju TEMF Hotel, Gyeongju, Korea, November 25-27, 2009

21. “Self-organized polymeric anode with work function tenability for flexible organic light-emitting diodes”, 1st Flexible, Stretchable Electronic Materials and Devices Workshop, Suwon, Korea, December 18, 2009

22. “Control of charge extraction in organic bulk heterojunction solar cells”, KIChE Polymer Division Workshop, POSTECH, Pohang, Korea, January 8, 2010

23. “Self-organized polymeric anode with tunable work function for flexible organic device applications”, The 105th National Meeting of the Korean Chemical Society, Songdoconvensia, Incheon, Korea, April 29-30, 2010

24. “Self-organized versatile flexible anode with tunable work function for flexible organic light-emitting diodes and solar cells”, International Union of Materials Research Societies-International Conference on Electronic Materials 2010 (IUMRS-ICEM 2010), KINTEX, Seoul, Korea, August 22-27, 2010

25. “Printing of polymer nanofibers for optical and electronic applications by robotic near-field electrospinning system”, International Union of Materials Research Societies-

International Conference on Electronic Materials 2010 (IUMRS-ICEM 2010), KINTEX, Seoul, Korea, August 22-27, 2010

26. “Self-Organized Versatile Anode for Flexible Organic Devices”, 10th International Meeting on Information Display(IMID)/International Display Manufacturing Conference(IDMC)/ Asia Display 2010, KINTEX, Seoul, Korea, October 11-15, 2010

27. “Transparent Anodes for Flexible Organic Light-Emitting Diodes Displays”, Fall Symposium 2010 of KIChE: Green Display Symposium, Daejeon Convention Center, Daejeon, Korea, October 21-22, 2010

28. “Role of Electron Extraction Contacts in Organic Bulk Heterojunction Solar Cells: Device Degradation Mechanism”, The Korean Electrochemcial Society Meeting, KIST, Seoul, Korea, November 4-5, 2010

29. “High Speed Electrohydrodynamic Nozzle Printing for Large Area Electroncis”, 2010 Printed Electronics Korea, KIMMS, Daejeon, Korea, November 11, 2010

30. “Highly Aligned Organic Nanowires and Their Applications”, The 10th International Discussion & Conference on Nano Interface Controlled Electronic Devices (IDC-NICE 2010), HAEVICHI Hotel, Jeju, Korea, October 27-30, 2010

31. “Solution processed interfacial layers in polymer photovoltaic cells”, Workshop on Hybrid Solar Cells, Busan National University, Busan, Korea, February 28, 2011

32. “Sustainable graphene growth and electronics”, The Meeting of the Polymer Society of Korea, Daejeon, Korea, April 7-8, 2011

33. “Aligned Printing of Organic Nanowires for Large Area Transistor Arrays and Nano-Lithography”, 2011 China-Korea Bilateral Symposium on Polymeric Materials, Weihai, China, July 3-6, 2011

34. “Interfacial layer approaches for improving the lifetime in organic photovoltaic cells”, The 1st KAIST EEWS Workshop on Organic Photovoltaic Cells (OPVs), KAIST, Daejeon, Korea, June 23, 2011

35. “Large Area Organic Nanowire Printing and Transistors”, The Meeting of the Polymer Society of Korea, Gwangju, Korea, October 6-7, 2011

36. “Self-organized polymeric anodes for high-performance organic light emitting diodes with simplified structures”, 2011 SPIE Optics+Photonics, San Diego, California, USA, August 21-25, 2011 (Invited talk at International Conference)

37. “Large-Area Organic Nanowire Electronics”, International Workshop on Organic Electronics, Kyung Hee University, Seoul, Korea, August 30, 2011

38. “Organic Light-Emitting Diodes using Graphene Anodes”, The Meeting of the Korean Physical Society, BEXCO, Busan, Korea, October 19-21, 2011

39. “Graphenes Converted from Polymers”, The 13th Cross Straits Symposium (CSS-13), Kyushu University, Kyushu, Japan, November 23-24, 2012

40. “Organic Nanowire Printing, Lithography, and Electronics”, The 19th Korean Conference on Semiconductors, Korea University, Seoul, Korea, February 15-17, 2012

41. “Highly Efficiency Flexible Organic Light-Emitting Diodes using Graphene Anodes”, 23rd IC ME&D 2012, Sungkyunkwan University, Suwon, Korea, May 24-25, 2012

42. “Large-area organic nanofiber electronics”, Electrospin 2012 - The International Conference on Electrospinning 2012, Hyatt Regency Jeju, Jeju, Korea, May 31, 2012

43. “Highly Efficient Flexible Organic Light-Emitting Diodes with Graphene Electrodes”, ICSM 2012 - International Conference on Science and Technology of Synthetic Metals, Hyatt Regency hotel, Atlanta, United States, July 12, 2012

44. “Flexible organic light emitting diodes using graphene electrodes”, SPIE Optics+Photonics 2012, San Diego Convention Center, San Diego, United States, August 13, 2012

45. “Flexible organic light-emitting diodes using graphene anodes for solid-state lightings”, Department of Electrical and Computer Engineering, University of California San Diego, San Diego, United States, August 17, 2012

46. “Flexible Organic Light-Emitting Diodes Using Graphene Anodes”, IUMRS-ICA 2012 - International Union of Materials Research Society-International conference in Asia 2012, Bexco, Busan, Korea, August 28, 2012

47. “Highly Efficient Flexible Organic Light-Emitting Diodes Using Graphene Anode”, IMID 2012 - The 12th International Meeting on Information Display, Exco, Daegu, Korea, August 29, 2012

48. “Flexible Organic Electroluminescent Devices Using Graphene Anodes”, KJF 2012 - KJF International Conference on Organic Materials for Electronics and Photonics 2012, Sendai, Miyagi, Japan, August 31, 2012

49. “Highly Efficient Flexible Organic Light-Emitting Diodes Using Graphene Electrodes”, 2nd International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2012), Ramada Plaza Jeju, Korea, September 16-19, 2012

50. “Graphene Electrodes for Flexible OLEDs”, The Meeting of the Polymer Society of Korea, CECO, Changwon, Korea, October 11-12, 2012

51. “Modified Graphene Anodes for Highly Efficient Flexible Organic Light-Emitting Diodes”, International Conference on Emerging Advanced Nanomaterials (ICEAN-2012), Mercure Hotel, Brisbane, Australia, October 22-25, 2012

52. “Flexible OLEDs for Solid State Lighting”, Fall Conference of the Korean Institute of Metals and Materials-Symposium for fused materials science division, Yonsei University, Seoul, Korea, November 9, 2012

53. “Graphene Electrodes for Flexible OLED Lighting”, International workshop on Flexible & Printable Electronics (IWFPE 2012), Muju Resort, Muju, Korea, November 15-16, 2012

54. “Flexible Electrodes for Organic Light-Emitting Diodes”, The 4th Asian Conference on Organic Electronics, Yonezawa, Yamagata, Japan, December 19-21, 2012

55. “Extremely efficient flexible organic light emitting diodes using graphene electrodes for solid-state lighting”, SPIE Photonics West 2013, The Moscone Center, San Francisco, United States, February 2-7, 2013

56. “Molecularly controlled interfacial layer strategy toward highly-efficient simple-structured organic light-emitting diodes”, SPIE Photonics West 2013, The Moscone Center, San Francisco, United States, February 2-7, 2013

57. “Graphene electrodes for flexible organic light-emitting diodes”, 6th International Conference on Advanced Materials and Nanotechnology (AMN-6), The University of Auckland Business School, Auckland, New Zealand, February 11-15, 2013

58. “Flexible organic light-emitting diodes using graphene electrodes”, China Semiconductor Technology International Conference (CSTIC 2013), Shanghai New International Expo Center, Sanghai, China, March 16-18, 2013

59. “Graphene electrodes for flexible organic electronics”, Imagine Nano-Graphene 2013, Bilbao Exhibition Centre, Bilbao, Spain, April 23-26, 2013

60. “Large-area gas sensor array based on highly aligned metal oxide nanofibers”, The Korean Ceramic Society Spring Meeting, Changwon, Korea, April 18, 2013

61. “Large-Scale Organic Nanowire Printing, Lithography and Electronics”, Nano and Display Materials Symposium, Jeju Hyatt Regency Hotel, Jeju, Korea, June 3-5, 2013

62. “Large-Scale Organic Nanowire Lithography and Electronics”, The 14th International Conference on the Formation of Semiconductor Interfaces, Hyundai Hotel, Gyeongju, Korea, June 30-July 5, 2013

63. “Large-Scale Organic Nanowire Lithography and Electronics”, 9th China-Korea Bilateral Symposium on Polymer Materials, Preess Resort Hotel, Changsha, China, July 14-18, 2013

64. “Highly Efficient Solution Processed OLEDs”, 2013 International LED & OLED Expo, KINTEX convention center, Korea, June 25-27, 2013

65. “Large-Area Organic Nanowire Electronics and Lithography”, The 13th International Discussion & Conference on Nano Interface Controlled Electronic Devices, Hiroshima, Japan, October 16-19, 2013

66. “Large-area Nano-Electronics and Lithography using Nanowire Printing”, Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2013), KimDaeJung Convention Center, Gwangju, Korea, October 16-19, 2013

67. “Large-scale Controlled Organic Nanowire Printing, Lithography, and Electronics”, The 2nd International Conference on Advanced Electromaterials, ICC Jeju, Jeju, Korea, November 12-15, 2013

68. “Large-Area Organic Nanowire Lithography and Electronics”, 2013 The 5th Asian-Conference on Organic Electronics, POSCO International Center, Pohang, Korea, November 13-15, 2013

69. “Flexible organic light-emitting diodes using flexible electrodes for solid-state lighting”, 2013 The 5th Asian-Conference on Organic Electronics, POSCO International Center, Pohang, Korea, November 13-15, 2013

70. “Large-Scale Electrohydrodynamic Organic Nanowire Printing, Lithography, and Electronics”, American Physical Society (APS) March Meeting 2014, Denver, Colorado, USA, March 3-7, 2014 (Invited)

71. “Large-area controllable nanowire printing, electronics and lithography”, The 8th International Symposium on Organic Molecular Electronics (ISOME 2014), Tokyo University of Agriculture and Technology, Koganei, Tokyo, Japan, May 15-16, 2014 (Invited).

72. “Flexible organic light-emitting diodes using flexible electrodes for solid-state lighting”, The 5th International Conference on White LEDs and Solid State Lighting (WLED-5), Ramada Plaza Hotel, Jeju, Korea, Jeju, Korea, June 1-5, 2014 (Invited)

73. “Universal flexible polymeric anodes for simplified organic optoelectronics”, SPIE Optics+Photonics 2014, San Diego Convention Center, San Diego, United States, August 17-22, 2014 (Invited)

74. “Large-Area Printed Nanowire Electronics and Lithography”, The 14th International Meeting on Information Display (IMID2014), EXCO, Daegu, Korea, August 26-29, 2014 (Invited)

75. “Scalable Production and Air-Stable Doping of Aligned Graphene Nanoribbons”, The 6th International Conference on Recent Progress in Graphene Research (RPGR2014), Howard International House, Taipei, Taiwan, September 21-25, 2014 (Invited)

76. “Air-Stable Solution-Processed Chemical Doping for Graphene Electronics”, The Polymer Society of Korea 2014 Fall Meeting, International Conventional Center, Jeju, Korea, October 6-8, 2014 (Invited)

77. “Ultra-High Efficiency Solution-Processed Small-Molecule OLEDs with a Simple Structure Using Universal Host Materials”, The 14th International Discussion & Conference on Nano Interface Controlled Electronic Devices (IDC-NICE 2014), Samcheonggak, Seoul, Korea, October 8-11, 2014 (Invited)

78. “Organic Nanowire Electronics and Lithography on Large-area”, The International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM), the Hainan International Convention & Exhibition Center in Haikou, China, October 24-27, 2014 (Invited)

79. “Boosting the Power Conversion Efficiency of Organic-Inorganic Hybrid Perovskite Solar Cells Using Self-Organized Polymeric Hole Extraction Layers with High Work Function”, International Workshop on Flexible and Printable Electronics 2014 (IWFPE 2014), Le Win Hotel, Jeonju, Jeollabuk-do, November 5-7, 2014 (Invited)

80. “Boosting the power conversion efficiency of perovskite solar cells using self-organized polymeric hole extraction layers with high work function”, 6th Asian Conference on Organic Electronics (A-COE 2014), National Cheng Kung University, Tainan, Taiwan, November 12-14, 2014 (Invited)

81. “Organometal halide perovskite solar cells using self-organized polymeric hole extraction layers with high work function”, 2014 International Conference for Leading and Young Materials Scientists (IC-LYMS 2014), Sanya, China, December 21-25, 2014 (Invited)

82. “Large-Scale Organic Nanowire Printing, Lithography, and Electronics”, Electronics Telecommunications Research Institute (ETRI), Daejeon, Korea, January 9, 2015 (Invited)

83. “Organic-inorganic perovskite optoelectronics using self-organized polymeric buffer layers”, Okinawa Institute of Science and Technology, Okinawa, Japan, January 23, 2015 (Invited)

84. “Large-Scale Nanowire Printing and Lithography for flexible Electronics”, Winter Symposium on Flexible & Stretchable Materials and Devices, The Korean Institute of Metals and Materials, Kookmin University, Seoul, Korea, February 3, 2015 (Invited)

85. “Flexible tandem organic light-emitting diodes with graphene anode”, SPIE Photonics West 2015, The Moscone Center, San Francisco, California, USA, February 7-12, 2015 (Invited)

86. “Organic Nanowire Synapses”, International Workshop on Bioengineering Innovations, POSCO International Center, POSTECH, Pohang, Korea, February 23-24, 2015 (Invited)

87. “Air-Stable Solution-Processed Doping for Graphene Electronics”, U.S.-Korea Nanomodular Materials and Systems by Design, Hanyang University, Seoul, Korea, March 26, 2015 (Invited)

88. “Flexible tandem organic light-emitting diodes with graphene anode”, 13th International Conference on Frontiers of Polymers and Advanced Materials (13th ICFPAM), Marrakesh, Morocco, March 30-April 2, 2015 (Invited)

89. “Organic/Inorganic Perovskite Optoelectronics using Polymeric Hole Injection/Extraction Buffer Layers”, The Polymer Society of Korea Spring Meeting, Daejeon Convention Center, Daejeon, Korea, April 9-10, 2015 (Invited)

90. “Organometal Halide Perovskite Optoelectronics using Controlled Polymeric Hole Transport Layers”, The Korean Society of Industrial and Engineering Chemistry Spring Meeting, BEXCO, Busan, Korea, April 29-30, 2015 (Invited)

91. “Organic/Inorganic Perovskite Optoelectronics: Solar Cells and LEDs”, 7th International Conference on Electroceramics (ICE2015), Penn Stater Conference Center, State College PA, USA, May 13-16, 2015 (Invited)

92. “Large-Scale Printed Metal Nanofiber Transparent Electrodes”, Samsung SDI, Suwon, Korea, May 20, 2015 (Invited)

93. “Next Displays: Organic-inorganic hybrid perovskite light-emitting diodes”, Perovskite Optoelectronics Workshop, POSCO International Center, Pohang, Korea, June 19, 2015 (Invited)

94. “Organic/Inorganic Perovskite Optoelectronics using Self-Organized Conducting Polymer Layers”, Molecular Electronics and Bioelectronics (M&BE8), Tower Hall Funabori, Tokyo, Japan, June 22-24, 2015 (Invited)

95. “Organic/Inorganic Perovskite Optoelectronics for Solar Cells and Displays”, 31st International Conference of the Polymer Processing Society, Jeju Island, Korea, June 7-11, 2015 (Invited)

96. “Large-scale nanowire printing and lithography for flexible electronics”, Department of Chemical Engineering, Stanford University, California, USA, July 27, 2015 (Invited)

97. “Ultraflexible high-efficiency organic light-emitting diodes using graphene anode”, SPIE Optics+Photonics 2015, San Diego Convention Center, San Diego, California, USA, August 10-13, 2015 (Invited)

98. “Printed organic nanowire synaptic transistors”, SPIE Optics+Photonics 2015, San Diego Convention Center, San Diego, California, USA, August 10-13, 2015 (Invited)

99. “Organic/Inorganic Perovskite Optoelectronics using Self-Organized Polymeric Buffer Layers”, Advanced Photonics Research Institute, Gwangju Institute of Science and Technology, Gwangju, Korea, August 21, 2015 (Invited)

100. “Next Light Emitters: Organic-Inorganic Perovskite Light-Emitting Diodes”, The Korean Vacuum Society Meeting 2015, Changwon Convention Center, Changwon, Korea, August 24, 2015 (Invited)

101. “Large-scale printing and lithography for flexible electronics”, Los Alamos National Laboratory, Los Alamos, New Mexico, USA, August 31, 2015 (Invited)

102. “Large-Scale Printing and Lithography for Flexible Electronics”, School of Polymer Science and Engineering, Chonnam National University, Gwangju, Korea, October 22, 2015 (Invited)

103. “Printed Flexible Displays and Electronics”, Huazhong Institute of Science and Technology, Wuhan, China, October 26, 2015 (Invited)

104. “Organic/Inorganic Perovskite Optoelectronics for Solar Cells and Displays”, Huazhong Institute of Science and Technology, Wuhan, China, October 27, 2015 (Invited)

105. “Flexible High-Efficiency Organic Light-Emitting Diodes Using Graphene Anode”, Huazhong Institute of Science and Technology, Wuhan, China, October 28, 2015 (Invited)

106. “Organic/Inorganic Perovskite Optoelectronics for Solar Cells and Displays”, Beijing Jiaotong University, Beijing, China, October 29, 2015 (Invited)

107. “Printed Organic Nanowire Artificial Synapses”, ACOE 2015, Peking University, Beijing, China, October 28-31, 2015 (Invited)

108. “Large-Scale Printing and Lithography for Flexible Electronics”, Nanjing University, Nanjing, China, November 2, 2015 (Invited)

109. “Organic/Inorganic Hybrid Perovskite Emitters as a Next Generation Emitter”, International Workshop on Flexible and Printable Electronics 2015 (IWFPE 2015), Le Win Hotel, Jeonju, Jeollabuk-do, November 4-6, 2015 (Invited)

110. “Organic nanowire artificial synapses”, 1st International Symposium on Emerging Functional Materials (IEFM 2015), Songdo Convensia, Incheon, Korea, November 4-6, 2015 (Invited)

111. “High-Efficiency Solution-Processed Small-Molecule Organic Light-Emitting Diodes with Simple Structure”, Solid-State and Organic Lighting (SOLED), Light Energy and the Environment Congress, Soochow University Dushu Lake Campus, Suzhou, China, November 2-5, 2015 (Invited)

112. “Air-stable chemical doping of graphene for organic electronics”, A3 Symposium, Chikushi Hall (C-CUBE), Chikushi Campus, Kyushu University, Fukuoka 816-8580, Japan, November 9-12, 2015 (Invited)

113. “Organic/inorganic perovskite optoelectronics for solar cells and displays”, Department of Materials Science and Engineering, Stanford University, California, USA, November 20, 2015 (Invited)

114. “Organic/inorganic perovskite optoelectronics for solar cells and displays”, Department of Materials Science and Engineering, Seoul National University, Seoul, Korea, December 11, 2015 (Invited)

115. Printed Flexible Organic and Hybrid Optoelectronics and Nanoelectronics”, Center for Frontier Science, Chiba University, Chiba, Japan, March 18, 2016 (Invited)

116. High Efficiency Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes”, Japan Society of Applied Physics Meeting, Tokyo Institute of Technology, Tokyo, Japan, March 19, 2016 (Invited)

117. Large-scale Printing and Lithography for Flexible Electronics”, Department of Materials Science and Engineering, University of Texas at Dallas, Dallas, USA, April 08, 2016 (Invited).
118. High Efficiency Metal Halide Perovskite Solar Cells and Light-Emitting Diodes”, Department of Electrical and Computer Engineering, University of Toronto, Toronto, Canada, April 12, 2016 (Invited)

119. “Next Light Emitters: Organometal Halide Perovskite Light-Emitting Diodes”, The 16th International Meeting on Information Display (IMID2016), ICC Jeju, Jeju, Korea, August 23-26, 2016 (Invited)

120. “High efficiency organometal halide perovskite solar cells and light-emitting diodes”, The Koren Organic Solar Cell Conference, Yonsei University, Seoul, August 24, 2016 (Invited)

121. “Highly Efficient Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes”, International Conference of Electroluminescence and Optoelectronic Devices (ICEL2016), Sheraton Raleigh Hotel, Raleigh, USA, October 2-5, 2016 (Invited)

122. “Metal Halide Perovskite Light-Emitting Diodes Using Multi-Functional Conducting Polymers”, International Conference on Advanced Polymeric Materials Commemorating the

40th Anniversary of the Polymer Society of Korea (2016 IUPAC-PSK40), International Convention Center Jeju, Jeju, Korea, October 4-7, 2016 (Invited)

123. "Solution-Processed p-Type Chemical Doping of Graphene", The Korean Physcial Society (KPS) Fall Meeting, Kimdaejung Convention Center, Gwangju, Korea, October 19-21, 2016 (Invited)

124. "Macromolecular p-type chemical doping for graphene electrode", 2016 The Korean Society of Industrial and Engineering Chemistry (KSIEC) Fall Meeting, ICC Jeju, Jeju, Korea, October 26-28, 2016 (Invited)

125. "Next light emitters: Metal halide perovskite light-emitting diodes", 2016 The Korean Society of Industrial and Engineering Chemistry (KSIEC) Fall Meeting, ICC Jeju, Jeju, Korea, October 26-28, 2016 (Invited)

126. "Efficient Organometal Halide Perovskite Light-Emitting Diodes", The 14th International Conference on Frontiers of Polymers and Advanced Materials (ICFPAM2016), DCC, Daejeon, Korea, October 31-November 4, 2016 (Invited)

127. "Solution-Processed p-Type Chemical Doping of Graphene for Flexible OLEDs", A3 Symposium, Buyeo Lotte Resort, Buyeo, Korea, October 30-November 3, 2016 (Invited)

128. "Next Electroluminescence Platform: Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", The 4th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), Ramada Plaza Hotel, Jeju, Korea, November 6-9, 2016 (Invited)

129. "High Efficiency Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", OSA Light, Energy and the Environment Congress 2016, Solid-State Lighting (SSL), Kongresshalle am Zoo, Leipzig, Germany, November 14-17, 2016 (Invited)

130. "High efficiency metal halide perovskite light-emitting diodes", 2nd International Conference on Organic Optoelectronics (ICOOE 2016), Ningbo Institute of Materials Technology & Engineering, Chinese Academy of Sciences (CAS), Ningbo, China, November 11-13, 2016 (기조강연)

131. "Next Light-Emitters: Metal Halide Perovskite Light-Emitting Diodes", Korea Institute of Industrial Technology, Jeonju, Korea, November 22, 2016 (Invited)

132. "Next Generation LEDs: Metal Halide Perovskite Light-Emitting Diodes", The 8th International Workshop on Flexible and Printable Electronics (IWFPE2016), National Intangible Heritage Center, Jeonju, Korea, November 23-24, 2016 (Invited)

133. “High efficiency organic-inorganic hybrid perovskite light-emitting diodes”, Department of Chemistry, University of Notre Dame, Notre Dame, USA, December 2, 2016 (Invited)

134. “Next Generation LEDs: Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes”, The 8th Asian Conference on Organic Electronics (A-COE 2016), Uji Obaku Plaza, Kyoto University, Kyoto, Japan, December 5-7, 2016 (Invited)

135. “High efficiency organic-inorganic hybrid light-emitting diodes”, 9th Singapore International Chemistry Conference (SICC-9), National University of Singapore, Singapore, December 11-14, 2016 (Invited)

136. “High efficiency organic-inorganic hybrid perovskite light-emitting diodes”, Department of Chemistry, Hong Kong Polytech University, Hong Kong, January 3, 2016 (Invited)

137. “High efficiency organic-inorganic hybrid perovskite solar cells and light-emitting diodes”, International Conference on Materials for Energy Applications (ICOMEA), City University of Hong Kong, Hong Kong, January 3-6, 2017 (Invited)

138. “High efficiency organic-inorganic hybrid perovskite solar cells and light-emitting diodes”, Department of Electrical Engineering, Princeton University, New Jersey, USA, January 13, 2016 (Invited)

139. “Efficient Metal Halide Perovskite Light-Emitting Diodes”, SPIE Photonics West 2017, The Moscone Center, San Francisco, United States, January 28-February 2, 2017 (Invited)

140. “Stable p-Type Chemical Doping of Graphene Electrode for Flexible Organic Light-Emitting Diodes”, 2017 Winter Workshop on 2D Materials, Seoul National University, Seoul, Korea, February 8-9, 2017 (Invited)

141. “Next LEDs: Metal Halide Perovskite Light-Emitting Diodes”, The 24th Korean Conference on Semiconductors (KCS 2016), Daemyung Resort Vivaldi Park, Pyeongchang, Kangwondo, Korea, February 13-15, 2017 (Invited)

142. “Organic and Organic-Inorganic Hybrid Artificial Synapses”, 2017 MRS Spring Meeting & Exhibit, Phoenix, Arizona, USA, April 17-21, 2017 (Invited)

143. “Ultrahigh-Efficiency Solution-Processed Small-Molecule Organic Light-Emitting Diodes Using Simple Structure”, 2017 MRS Spring Meeting & Exhibit, Phoenix, Arizona, USA, April 17-21, 2017 (Invited)

144. “Fine Stiochiometric Tuning and Nanograin Engineering for Efficient Organic/Inorganic Hybrid Perovskite Light-emitting Diodes”, 2017 MRS Spring Meeting & Exhibit, Phoenix, Arizona, USA, April 17-21, 2017 (Invited)

145. “Next Generation Light Emitters: Metal Halide Perovskites”, IC ME&D 2017, Sogang University, Seoul, Korea, May 18-19, 2017 (Invited)

146. “Brain-Inspired Organic and Organic-Inorganic Hybrid Artificial Synapses”, International Symposium on Memory Devices for Abundant Data Computing, The Hong Kong Polytechnic University, Hong Kong, September 22-25, 2017 (Invited)

147. “Artificial Synapses Using Organic and Organic-Inorganic Hybrid Materials”, Small Science Symposium 2017, The Hong Kong Polytechnic University, Hong Kong, May 14-17, 2017 (Invited)

148. “Highly Efficient Solution-Processed Small-Molecule Organic Light-Emitting Diodes Using Novel Transporting Host”, SPIE 2017, San Diego, California, USA, July 19-August 15, 2017 (Invited)

149. “Flexible and Stretchable Organic Artificial Synapses”, The 9th Asian Conference on Organic Electronics (A-COE) 2017, Daejeon, Korea, October 25-27, 2017 (Invited)

150. “Highly aligned printed nanofibers for flexible electronics and neuromorphic artificial synaptic electronics”, Electrospin 2018 International Conference, Stellenbosch Institute for Advanced Study Stellenbosch, South Africa, January 16, 2018 (Invited)

151. “High Efficiency Metal Halide Perovskites”, International Symposium on Energy Science and Technology (ISEST2018), Okinawa Institute of Science and Technology (OIST) Graduate University, Okinawa, Japan, January 22, 2018 (Invited)

152. “Boosting the Electroluminescence Efficiency of Metal Halide Perovskite Light-Emitting Diodes”, SNU-PolyU Joint Symposium on Flexible Organic and Perovskite Electronics, The Hong Kong Polytechnic University, Hung Hom, Hong Kong, January 30, 2018 (Invited)

153. “Perovskite Light Emitting Nanoparticles and Diodes”, 2018 QD & PV Research Seminar 1st Half Workshop, Hongik University, Seoul, Korea, February 9, 2018 (Invited)

154. “Photo Physical Analysis of Perovskite Emitters”, Institute of Applied Physics and Materials Engineering (IAPME), University of Macau, Macau, February 21-23, 2018 (Invited)

155. “Organic nanofiber neuromorphic and deformable electronics”, 2018 Materials Research Society spring meeting & exhibit (2018 MRS spring), Materials Research Society, Phenix, Arizona, USA, April 2, 2018 (Invited)

156. “Overcoming intrinsic exciton quenching problem of metal-halide perovskite light-emitting diodes by use of graphene anode, 2018 Materials Research Society spring meeting & exhibit (2018 MRS spring), Materials Research Society, Phenix, Arizona, USA, April 2, 2018 (Invited)

157. “Efficiency metal halide perovskite light-emitting diodes”, 2018 Materials Research Society spring meeting & exhibit (2018 MRS spring), Materials Research Society, Phenix, Arizona, USA, April 2, 2018 (Invited)

158. ″High-efficiency perovskite light-emitting diodes and investigation on their photophysical properties”, 2018 KPS Spring Meeting, Korean Physic Society, Daejeon Convention Center, Daejeon, Korea, April 25, 2018 (Invited)

159. ″High efficiency metal hlide perovskite light-emitting diodes”, 2018 KISEC spring meeting, Korean Society of Industrial and Engineering Chemistry, Daegu Exhibition & Convention Center, Daegu, Korea, May 2, 2018 (Invited)

160. ″Synthesis of Colloidal Metal-Halide Perovskite Nanoparticles and Application on Efficient Light-Emitting Diodes”, 2018 Colloid and Interface Symposium (COINS 2018), Sungkyunkwan University, Seoul, Korea, June 5, 2018 (Invited)

161. ″Boosting the efficiency in perovskite light-emitting diodes”, The 7th Pacific Rim Conference on Rheology, The Korean Society of Rheology, Jeju, Korea, June 11, 2018 (Invited)

162. ″Printed Organic Nanofiber Neuromorphic and Deformable Electronics”, International Conference on Flexible Electronics (ICFE 2018), Tsinghua University, Hangzhou, China, July 16, 2018 (Invited)

163. ″Halide perovskite dot emitters for display applications”, The 18th International Meeting on Information Display (2018 IMID), The Korean Information Display Society (KIDS), Gyeongju, Korea, August 29, 2018 (Invited)

164. ″High Efficiency Light-Emitting Diodes based on Metal Halide Perovskite Nanoparticles”, The 19th International Workshop on Inorganic and Organic Electroluminescence & 2018 International Conference on the Science and Technology of Emissive Displays and Lighting (EL 2018), Japan Society for the Promotion of Science, Tokyo, Japan, September 13, 2018 (Invited)

165. ″Neuromorphic flexible organic afferent nerves for bio-inspired electronics”, The 10th International Discussion & Conference on Nano Interface Controlled Electronic Devices (IDC-NICE 2018), The Korea Molecular Electronics and Devices (기조강연)

166. ″Metal halide perovskite emitters and their display applications”, 12th International Conference on Electroluminescence and Optoelectronic Devices (ICEL 2018), Seoul National University, Jeju, Korea, October 16, 2018 (Invited)

167. ″Next-Generation Light Emitters: Halide Perovskite Light-emitting Diodes”, The Korea Chemical Society fall meeting, Korea Chemical Society, Suwon, Korea, October 18, 2018 (Invited)

168. ″Bio-inspired artificial mechanosensory nerves based on flexible organic electronics”, 2018 KPS Fall Meeting, Korean Physics Society, Changwon, Korea, October 24, 2018 (Invited)

169. ″Universal graphene anode for highly efficient organic and perovskite light-emitting diodes”, Low Dimensional Materials for Optoelectronics (LDMO 2018), Shenzhen University, Shenzhen, China, October 26, 2018 (Invited)

170. ″Chemical modification of graphene for stable high work function anode and hole injecting interface and its opto-electronic applications”, 9th A3 symposium on Emerging Materials, Foundation Advanced Technology Institute (ATI), Kyoto, Japan, October 29, 2018 (Invited)

171. ″Efficient light-emitting diodes based on metal halide perovskite nanoparticles beyond quantum size”, The 5th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2018), Korean Institute of Metals and Materials, Jeju, Korea, November 14, 2018 (Invited)

172. ″Flexible and Stretchable Organic Synapses-based Sensory and Motor Nervous Systems for Bio-inspired Electronics”, The 10th Asian Conference on Organic Electronics (A-COE 2018), City university of Hong Kong, Hong Kong, December 6, 2018 (Invited)

173. ″Interfacial modification in metal halide perovskite based solar cells”, OPTIC 2018, Taiwan photonics society, Tainan City, Taiwan, December 8, 2018 (Invited)

174. ″A bioinspired flexible organic artificial mechanosensory nerve system″ Nano Convergence Conference 2019, Elysian Gangchon Resort, Chun Cheon, Korea, January 17-18, 2019 (기조강연)

175. ″Flexible and Stretchable Organic Artificial Nervous Systems for Bioinspired Electronics”, A3 Foresight Program (Atami), Atami, Japan, January 18-20, 2019 (Invited)

176. ″High-efficiency Halide Perovskite Nanoparticle Light-emitting Diodes”, Flex & MSTC 2019, Monterey, California, February 18-21, 2019 (Invited)

177. ″Overcoming Fundamental Limitations for High-Efficiency Polycrystalline Perovskite Light-Emitting Diodes”, Interfaces in Organic and Hybrid Thin-Film Optoelectronics (INFORM 2019), Spain, March 3-5, 2019 (Invited)

178. ″Organic Artificial Nerves″ The Spring Meeting of The Korea Polymer Society of Korea, Busan Exhibition & Convention Center, Busan, Korea, April 11, 2019 (기조강연)

179. ″Organic Artificial Nerves for Neuromorphic Electronics″, The International Conference on Molecular Electronics and Devices (IC ME&D 2019), Paradise Hotel Busan, Busan, Korea, May 9-10, 2019 (기조강연)

180. ″Flexible/Stretchable Organic Artificial Nerves”, 1st Workshop on Neuromorphic Organic Devices, Ferrara, Italy, June 12-14, 2019 (Invited)

181. ″Organic Artificial Nerves”, Photonics & Electromagnetics Research Symposium (PIERS 2019), University of Rome “La Sapienza”, Rome, Italy, June 17-20, 2019 (Invited)

182. ″High-Efficiency Polycrystalline Metal Halide Perovksite Light-Emitting Diodes”, The 8th Sungkyun International Solar Forum (SISF 2019), 600th anniversary hall, SKKU, Seoul, Korea, June 19-21, 2019 (Invited)

183. ″Flexible and Stretchable Organic Neuromorphic Systems for Bio-inspired Electronics”, OSA Advanced Photonics 2019, Burlingame, California, USA, July 29-August 1, 2019 (Invited)

184. ″Highly Efficient Polycrystalline Perovskite Light-Emitting Diodes using Nanograin Engineering”, International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 (Invited Speaker and Conference Chair, 학회장)

185. ″Boosting electroluminescent efficiency of polycrystalline lead halide perovskite light emitting diodes”, SPIE Optics + Photonics Exhibition 2019, San Diego Convention Center, San Diego, United States, August 11-15, 2019 (Invited)

186. ″Flexible and Stretchable Organic Artificial Nerves”, The 16th U.S.-Korea Forum on Nanotechnology, University of California, San Diego (UCSD), Qualcomm Institute, California, United States, September 23-24, 2019 (Invited)

187. ″Boosting Efficiency of Polycrystalline Perovskite Light Emitting Diodes by Nanograin Engineering”, 5th International Conference on Perovskite Solar Cells and Optoelectronics (PCSO-2019), Lausanne, Switzerland, September 30-October 2, 2019 (Invited)

188. ″Flexible Bio-Inspired Organic Artificial Sensory Nervous Systems”, The 4th International Conference on Active Materials and Soft Mechatronics (AMSM 2019), Sheraton Grand Incheon Hotel, Incheon, Republic of Korea, October 16-19, 2019 (Invited)

189. ″Nanograin Engineering for High-Efficiency Metal Halide Perovskite Light-Emitting Diodes”, The 5th International Conference on Advanced Electromaterials (ICAE 2019), Ramada Plaza Jeju Hotel, Jeju, Korea, November 5-8, 2019 (Invited)

190. ″Flexible and Stretchable Artificial Nerve Electronics for Neuromorphic Computing, Soft Robotics, and Neuroprosthetics” The 11th Asian Conference on Organic Electronics (ACOE 2019), New Taipei City, Taiwan, November 6-9, 2019 (Invited)

191. ″Highly Efficient Polycrystalline Perovskite Light-Emitting Diodes using Nanograin Engineering”, International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 (Invited)

192. ″Highly Efficient Hybrid Perovskite Nanoparticle Light-Emitting Diodes Using Mixed Cation”, Material Research Society (MRS) fall 2019, Boston, Massachusetts, United States, December 1-6, 2019 (Invited)

193. "Organic Neuromorphic Electronics for Emulation of Biological Nervous Systems", The 12th Asian Conference on Organic Electronics (A-COE 2020), Busan, November 08-10, 2020 (Invited)

194. "Core/shell structured metal halide perovskites for high-efficiency light-emitting diodes and their display applications", nanoGe fall meeting 2020, Virtual, October 20-23, 2020 (기조강연)

195. "Overcoming instability of metal halide perovskite emitters and their display applications", 2020 SPIE Optics + Photonics, Virtual, August 24-September 4, 2020 (Invited)

196. "Metal halide perovskite light emitters and their display applications", Ecomat Webinar, Virtual, November 18, 2020 (Invited)

197. "Core/shell structured metal halide perovskites for highly efficient and stable light-emitting diodes", Japan OLED forum 2020, Chiba, December 14-16, 2020 (기조강연)

198. "Bio-Inspired Organic Artificial Nerves for Peripheral Nerve Emulation", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 (Invited)

199. "Bio-inspired neuromorphic electronics for artificial nervous systems", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 (Invited)

200. "Flexible, Stretchable Bio-Inspired Artificial Nervous Systems ", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 (Invited (tutorial))

201. "High-efficiency core-shell or core-shell mimicked perovskite emitters and light-emitting diodes", International Online Conference on Hybrid Materials and Optoelectronic Devices (HYBRIDOE), nanoGe 2020, Virtual, December 15-17, 2020 (Invited)"

202. "Comprehensive defect suppression of halide perovskite nanoparticle for high-efficiency light-emitting diodes", MRS spring 2021 (Materials Research Society spring meeting & exhibit), Virtual, April 17-23, 2021 (Invited)

203. "Overcoming instability of metal halide perovskite emitters", SPIE photonics west 2021 (the international society for optics and photonics), Virtual, March 6-11, 2021 (Invited)

204. "Comprehensive Defect Passivation Strategies for Efficient Perovskite Light-Emitting Diodes", IUMRS-ICA 2021 (The 22nd International union of materials research societies-international conference in Asia), Jeju, October 3-8, 2021 (기조강연)

205. "Highly efficient perovskite light-emitting diodes via defect suppression", ICAE 2021 (The 6th International Conference on Advanced Electromaterials), Jeju, November 9-12, 2021 (Invited)

206. "Comprehensive Defect Passivation Strategies for Efficient Perovskite Nanocrystal Light-Emitting Diodes", ACOE 2021 (The Asian Conference on Organic Electronics), Online, September 2-4, 2021 (Invited)

207. "Bio-inspired Neuromorphic Electronics for Artificial Nervous Systems", The 48th World Polymer Congress (IUPAC-MACRO2020+), Jeju, May 16-20, 2021 (Invited)

208. "Bio-Inspired Organic Artificial Peripheral Nervous Systems", E-MRS 2021, Virtual, May 31-June 3, 2021 (Invited)

209. "Flexible and Stretchable Organic Artificial Nerves", The 3rd International Symposium on Memory Devices for Abundant Data Computing, Virtual, May 26-29, 2021 (Invited)

210. "High-efficiency perovskite nanocrystal light-emitting diodes via comprehensive defect suppression", SPIE 2022, San Francisco, January 22-27, 2022 (Invited)

211. "High Efficiency Halide Perovskite Nanoparticle Light-emitting Diodes", APC 2021 (11th Asian Photochemistry Conference), Seoul (online), November 1-4, 2021 (기조강연)

212. "High-efficiency perovskite light-emitting diodes via comprehensive defect suppression", IDC-NICE 2021 (The 20th International Discussion & Conference on Nano Interface Controlled Electronic Devices), Virtual, October 6-7, 2021 (Invited)

213. "Organic Artificial Peripheral Nerves interfacing with Biological Nerves", 2021 한국고분자학회 추계학술대회, Gyeongju, October 20-22, 2021 (Invited)

214. "Two-Dimensional Graphene and MXene for Flexible and Stretchable Optoelectronic Applications", A3 Forecast Symposium, Seoul, 2021 (Invited)

215. "Perovskite Emitters for Down-Conversion, Self-Emissive, and AR/VR Displays", 대한금속 재료학회 춘계학술대회, Changwon, April 27-29, 2022 (기조강연)

216. "Suppression of defects and ion-migration for efficient perovskite emitters and light-emitting diodes", 2022 MRS spring, Online, May 8-13, 2022 (Invited)

217. "Stretchable Neuromorphic Artificial Efferent Nerves for Spinal Cord Injury", 2022 한국재료학회 춘계학술대회, Kangwon, May 18-20, 2022 (Invited)

218. "Two-Dimensional MXene and Graphene for Flexible and Stretchable Light-Emitting Diodes", 제 9 회 한국그래핀 · 2 차원 소재 심포지엄, Busan, July 11-12, 2022 (Invited)

219. "Versatile Neuromorphic Application of Ion-gel Gated Synaptic Transistors: From Neuromorphic computing to Nervetronics", the 20th International Symposium on the Physics of Semiconductors and Applications , Jeju, July 17-21, 2022 (Invited)

220. "Exploiting the full advantages of colloidal perovskite nanocrystals for large-area efficient light-emitting diodes", SPIE Optics+ Photonics 2022, San Diego, August, 2022 (Invited)

221. "Future display technologies with perovskite emitters", International Conference on Flexible and Printed Electronics (ICFPE), Jeju, October 11-14, 2022 (기조강연)

222. "Efficient, Bright, and stable perovskite light-emitting diodes", 물리학회 (KPS) 2022, Busan, Oct 18-21, 2022 (Invited)

223. "Two-Dimensional MXene and Graphene for Flexible and Stretchable Optoelectronic Devices", 2022 년도 대한금속 재료학회 추계학술대회, Jeju, Oct 26-28, 2022 (Invited)

224. "Perovskite emitters for down-conversion, self-emissive, and metaverse display", ENGE (The 7th International Conference on Electronic Materials and Nanotechnology for Green Environment), Jeju, November 6-9, 2022 (Keynote)

225. "Nanocrystal engineering for efficient and stable perovskite light-emitting diodes", International Conference on Electroluminescence and Optoelectronic Devices (ICEL), London, Dec 5-7, 2022 (Invited)

226. "Flexible Organic Nervetronics and Nerveprosthetics", MEMRISYS 2022, Boston, Nov 30-Dec 2, 2022 (Invited)

227. "Stretchable and Flexible Artificial Nerves for Nerveprosthetics ", International Conference on Flexible Electronics (ICFE 2022), Online, Dec 10-11, 2022 (Keynote)

228. "Two-Dimensional Graphene and MXene Electrodes for Flexible and Stretchable Organic Light-Emitting Diodes", The 64th Fullerenes-Nanotubes-Graphene General Symposium, Nagoya, March 1-3, 2023 (Invited)

229. "Organic Nervetronics for Next-Generation Computing and Nervetronics", 2023 MRS Spring, SanFranscisco, April 10-14, 2023 (Invited)

230. "Perovskite Nanocrystal Emitters for Efficient, Bright, and Stable Light-Emitting Diodes", 2023 MRS Spring, SanFranscisco, April 10-14, 2023 (Invited)

231. "Perovskite Nanocrystal Emitters for Efficient, Bright, and Stable Light-Emitting Diodes", 2023 KFPE spring meeting, Yeosu, April 26-28, 2023 (Invited)

232. "Perovskite Nanocrystal for efficient, stable and large-area light-emitting diodes", SID's Display Week 2023, Los Angeles, May 22-26, 2023 (Invited)

233. "Perovskite nanocrystal engineering for bright, efficient and stable light-emitting diodes", Compound Semiconductor Week (CSW) 2023, Jeju, May 29 - June 2, 2023 (Keynote)

234. "Perovskite Nanocrystal Light-Emitting Diodes for High Brightness, Efficiency, and Stability", Global Conference on Innovation Material (GCIM) 2023, Jeju, June 6-9, 2023 (Keynote)

235. "Overcoming Efficiency and Stability Challenges in Perovskite Light-Emitting Diodes", nanomaterials for display and photonic applications ("NanoDisP"), Hong Kong, June 19-21, 2023 (Keynote)

236. "Efficient light-emitting and light-harvesting devices utilizing perovskite nanocrystals", EcoMat Conference 2023, Hong Kong, June 20-24, 2023 (Keynote)

237. "Artificial synapse and nerve for next-generation computing and neuroprosthetics", ICMAT 2023, Singapore, June 26-30, 2023 (Invited)

238. "Perovskite Nanocrystal Emitters for bright, efficient, and stable light-emitting diodes", PhotonIcs & Electromagnetics Research Symposium (PIERS) 2023, Prague, July 3-6, 2023 (Invited)

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80. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-Y. Min, C.-L. Lee, **T.-W. Lee***, "Highly efficient simple structured organic light emitting diodes using molecularly controlled interfacial layer", 23rd IC ME&D 2012, Sungkyunkwan University, Suwon, Korea, May 24-25, 2012 **(Oral)**

81. H. Kim, S.-H. Bae, T.-H. Han, J.-H. Ahn, **T.-W. Lee***, "flexible organic photovoltaics using graphene anode", 23rd IC ME&D 2012, Sungkyunkwan University, Suwon, Korea, May 24-25, 2012 **(Poster)**

82. H.-K. Seo, S.-J. Byun, T.-H. Han, M. Son, H. C. Choi, J.-H. Ahn, **T.-W. Lee***, **"**Synthesis of graphene from polymer", 23rd IC ME&D 2012, Sungkyunkwan University, Suwon, Korea, May 24-25, 2012 **(Poster)**

83. S.-Y. Min, T. S. Kim, J. H. Cho, **T.-W. Lee***, "Large-area organic nanofiber electronics", Electrospin 2012 - The International Conference on Electrospinning 2012, Hyatt Regency Jeju, Jeju, Korea, May 31, 2012 **(Invited)**

84. T.-S. Kim, S.-Y. Min, **T.-W. Lee***, "P3HT nanofiber transistors using polymeric electrodes with high work function", Electrospin 2012-The International Conference on Electrospinning 2012, Hyatt Regency Hotel, Jeju, Korea, May 29-June 1, 2012 (**Oral**)

85. S.-Y. Min, T.-S. Kim, B. J. Kim, J. H. Cho, **T.-W. Lee***, **"**E-nozzle printed P3HT:PEO nanowires: Correlation of morphology with field effect mobilities in transistors", Electrospin 2012-The International Conference on Electrospinning 2012, Hyatt Regency Hotel, Jeju, Korea, May 29- June 1, 2012 **(Oral)**

86. H. Cho, S.-Y. Min, T.-S. Kim, **T.-W. Lee***, **"**High-Speed Nozzle Printing of Light-Emitting Nanowires", Electrospin 2012-The International Conference on Electrospinning 2012, Hyatt Regency Hotel, Jeju, Korea, May 29- June 1, 2012 **(Poster)**

87. Y. Lee, S.-Y. Min, **T.-W. Lee***, **"**Highly Aligned Cu nanowire array printing", Electrospin 2012-The International Conference on Electrospinning 2012, Hyatt Regency Hotel, Jeju, Korea, May 29- June 1, 2012 **(Poster)**

88. M. Kim, S.-Y. Min, J. W. Yoo, T.-S. Kim, H. Cho, H. W. Jang, J. H. Je, **T.-W. Lee***, **"**Hybrid nanowire array gas sensor", Electrospin 2012-The International Conference on Electrospinning 2012, Hyatt Regency Hotel, Jeju, Korea, May 29- June 1, 2012 **(Poster)**

89. M.-H. Park, T. H. Han, J. Y. Kim, **T.-W. Lee*, "**Preparation of Flex Lami-Capsulation for Flexible Organic Light Emitting Diodes", LOPE-C, Internationales Congress Center Munchen, Germany, June 19-21, 2012 **(Poster)**

90. S.-Y. Min, T.-S. Kim, **T.-W. Lee*, "**Large-Area Light-Emitting Organic Nanowire Printing", LOPE-C, Internationales Congress Center Munchen, Germany, June 19-21, 2012 **(Poster).**

91. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Highly Efficient Flexible Organic Light-Emitting Diodes with Graphene Electrodes", ICSM 2012 - International Conference on Science and Technology of Synthetic Metals, Hyatt Regency hotel, Atlanta, United States, July 12, 2012 (**Invited**)

92. K.-G. Lim, M.-R. Choi, H.-B. Kim, J.-S. Kim, T. Park, **T.-W. Lee*,** "Systematic control of open circuit voltages and device lifetime in organic photovoltaic cells by work function tunable hole extraction layers", ICSM 2012, Atlanta, Georgia, United States, July 8-13, 2012 **(Poster)**

93. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Flexible organic light emitting diodes using graphene electrodes", SPIE Optics+Photonics 2012, San Diego Convention Center, San Diego, United States, August 13, 2012 (Invited).

94. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Flexible Organic Light-Emitting Diodes Using Graphene Anodes", IUMRS-ICA 2012 - International Union of Materials Research Society-International conference in Asia 2012, Bexco, Busan, Korea, August 28, 2012 **(Invited)**

95. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Highly Efficient Flexible Organic Light-Emitting Diodes Using Graphene Anode", IMID 2012 - The 12th International Meeting on Information Display, Exco, Daegu, Korea, August 29, 2012 **(Invited)**

96. M.-H. Park, H.-B. Kim, J.-Y. Kim, **T.-W. Lee*,** "Flex Lami-Capsulation: Reliable Encapsulation for Flexible Organic Opto-Electronic Devices", IMID 2012 - The 12th International Meeting on Information Display, Exco, Daegu, Korea, August 28-31, 2012 **(Oral)**

97. H. Cho, S.-H. Jeong, S.-Y. Min, **T.-W. Lee*,** "High-Speed Nozzle Printing of Light-Emitting Organic Nanowires", IMID 2012 - The 12th International Meeting on Information Display, Exco, Daegu, Korea, August 28-31, 2012 **(Poster)**

98. S.-H. Jeong, H.-B. Kim, K.-G. Lim, W.-S. Shin, **T.-W. Lee*,** "ITO-Free Organic Optoelectronic Devices by using Noble Self-Organized Versatile Polymeric Anode", IUMRS-ICA 2012, Bexco, Busam, Korea, August 26-31, 2012 **(Poster)**

99. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Flexible Organic Electroluminescent Devices Using Graphene Anodes", KJF 2012 - KJF International Conference on Organic Materials for Electronics and Photonics 2012, Sendai, Miyagi, Japan, August 31, 2012 **(Invited)**

100. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Highly Efficient Flexible Organic Light-Emitting Diodes Using Graphene Electrodes", 2nd International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2012), Jeju, Korea, September 16-19, 2012 **(Invited)**

101. Y.-H. Kim, K.-G. Lim, **T.-W. Lee*,** "Air stable, inverted PLEDs on Flexible metal substrate", 2nd International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2012), Ramada Plaza Jeju Hotel, Jeju, Korea, September 16-19, 2012 **(Oral)**

102. K.-G. Lim, J.-M. Park, T.-L. Choi, **T.-W. Lee*,** "A strong intermolecular pi-pi stacking of PPVTV:PCBM packing structure for high efficiency organic photovoltaic cells", 2nd International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2012), Ramada Plaza Jeju Hotel, Jeju, Korea, September 16-19, 2012 **(Oral)**

103. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Modified Graphene Anodes for Highly Efficient Flexible Organic Light-Emitting Diodes", International Conference on Emerging Advanced Nanomaterials (ICEAN-2012), Brisbane, Australia, October 22-25, 2012 **(Invited)**

104. **T.-W. Lee***, "Graphene Electrodes for Flexible OLED Lighting", International workshop on Flexible & Printable Electronics (IWFPE 2012), Muju, Korea, November 15-16, 2012 **(Invited)**

105. T.-S. Kim, S.-Y. Min, **T.-W. Lee*,** "Highly Aligned PH3T Nanofiber Transistors on Self-organized Polymeric Electrodes", MRS Fall 2012, Hynes Convention Center, Boston, Massachusetts, USA, November 25-30, 2012 **(Oral)**

106. H. Kim, S.-H. Bae, T.-H. Han, J.-H. Ahn, **T.-W. Lee*,** "A Flexible, Conductive and Transparent Graphene Anode with Self-organized Polymeric Hole Extraction Layer for Organic Solar Cells", MRS Fall 2012, Hynes Convention Center, Boston, Massachusetts, USA, November 25-30, 2012 **(Poster)**

107. H.-K. Seo, S.-J. Byun, T.-H. Han, M. Son, S.-Y. Lee, H. C. Choi, J.-H. Ahn, **T.-W. Lee*,** "Graphene Recycled from Coal Tar Pitch", MRS Fall 2012, Hynes Convention Center, Boston, Massachusetts, USA, November 25-30, 2012 **(Poster)**

108. **T.-W. Lee***, "Flexible Electrodes for Organic Light-Emitting Diodes", The 4th Asian Conference on Organic Electronics, Yonezawa, Yamagata, Japan, December 19-21, 2012 **(Invited)**

109. K.-G. Lim, M.-R. Choi, H.-B. Kim, J. Kim, T. Park, **T.-W. Lee***, "Systematic Control of Open Circuit Voltages and Device Lifetime in Organic Photovoltaic Cells by Work-Functional-Tunable Hole Extraction Layers", The 4th Asian Conference on Organic Electronics, Yonezawa, Yamagata, Japan, December 19-21, 2012 **(Poster)**

110. K.-G. Lim, S. M. Park, H. Y Woo, **T.-W. Lee***, "Role of Conjugated Polyelectrolytes for High-Performance Organic Photovoltaics", The 4th Asian Conference on Organic Electronics, Yonezawa, Yamagata, Japan, December 19-21, 2012 **(Poster)**

111. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Extremely efficient flexible organic light emitting diodes using graphene electrodes for solid-state lighting", SPIE Photonics West 2013, The Moscone Center, San Francisco, United States, February 2-7, 2013 **(Invited)**

112. T.-H. Han, M.-R. Choi, C.-L. Lee, **T.-W. Lee***, "Molecularly controlled interfacial layer strategy toward highly-efficient simple-structured organic light-emitting diodes", SPIE Photonics West 2013, The Moscone Center, San Francisco, United States, February 2-7, 2013 **(Invited)**

113. **T.-W. Lee***, "Graphene electrodes for flexible organic light-emitting diodes", 6th International Conference on Advanced Materials and Nanotechnology, The University of Auckland Business School, Auckland, New Zealand, February 11-15, 2013 **(Invited)**

114. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Flexible organic light-emitting diodes using graphene electrodes", China Semiconductor Technology International Conference (CSTIC 2013), Shanghai New International Expo Center, Sanghai, China, March 16-18, 2013 **(Invited)**

115. S.-H. Jeong, T.-H. Han, M.-H. Park, H.-B. Kim. **T.-W. Lee***, "ITO-free simplified organic light-emitting diodes by using self-organized polymeric anodes", 2013 Material Research Society (MRS), Moscone West, San Fransisco, California, USA, April 1-5, 2013 **(Poster)**

116. S.-Y. Min, T.-S. Kim, H. Cho, **T.-W. Lee***, "E-nanowire printed organic electronics & lithography", 2013 Material Research Society (MRS), Moscone West, San Fransisco, California, USA, April 1-5, 2013 **(Poster)**

117. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, H.-B. Kim, H.-K. Seo, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Graphene electrodes for flexible organic electronics", Imagine Nano-Graphene 2013, Bilbao Exhibition Centre, Bilbao, Spain, April 23-26, 2013 (**Invited**)

118. S.-Y. Min, T.-S. Kim, H. Cho, **T.-W. Lee***, "Large-scale controlled organic nanowire electronics", The 24th International Conference Molecular Electronics & Devices (IC-ME&D), KAIST, Daejeon, Korea, May 15-16, 2013

119. S.-Y. Min, T.-S. Kim, **T.-W. Lee***, "Large-scale organic nanowire lithography and electronics", The 24th International Conference Molecular Electronics & Devices (IC-ME&D), KAIST, Daejeon, Korea, May 15-16, 2013

120. M.-H. Park, **T.-W. Lee***, "Novel Flexible Lamination Encapsulation Method for Flexible Devices", The 24th International Conference Molecular Electronics & Devices (IC-ME&D), KAIST, Daejeon, Korea, May 15-16, 2013

121. **T.-W. Lee***, "Large-Scale Organic Nanowire Printing, Lithography and Electronics", Nano and Display Materials Symposium, Jeju Hyatt Regency Hotel, Jeju, Korea, June 3-5, 2013 **(Invited)**

122. S.-Y. Min, T.-S. Kim, B. J. Kim, H. Cho, H. Yang, Y.-Y. Noh, J. H. Cho, **T.-W. Lee***, "Large-Scale Organic Nanowire Lithography and Electronics", The 14th International Conference on the Formation of Semiconductor Interfaces, Hyundai Hotel, Gyeongju, Korea, June 30-July 5, 2013 **(Invited)**

123. S.-Y. Min, T.-S. Kim, B. J. Kim, H. Cho, H. Yang, Y.-Y. Noh, J. H. Cho, **T.-W. Lee***, "Large-Scale Organic Nanowire Lithography and Electronics", 9th China-Korea Bilateral Symposium on Polymer Materials, Bilbao Exhibition Centre, Changsha, China, July 14-18, 2013 **(Invited)**

124. **T.-W. Lee***, "Highly Efficient Solution Processed OLEDs", 2013 International LED & OLED Expo, KINTEX convention center, Korea, June 25-27, 2013 **(Invited)**

125. Y. Lee, T.-S. Kim, S.-Y. Min, **T.-W. Lee***, "Highly Aligned Printed Metallic Nanofiber Electronics", International Conference on Flexible and Printed Electronics 2013 (ICFPE 2013), The Shilla Hotel, Jeju, Korea, September 11-13, 2013 **(Poster)**

126. S.-Y. Min, T.-S. Kim, B. J. Kim, H. Cho, Y.-Y. Noh, H. Yang, J. H. Cho, **T.-W. Lee***, "Large-scale Organic Nanowire Printed Electronics and Lithography", International Conference on Flexible and Printed Electronics 2013 (ICFPE 2013), The Shilla Hotel, Jeju, Korea, September 11-13, 2013 **(Poster)**

127. H. Kim. S.-H. Bae, T.-H. Han, K.-G. Lim, J.-H. Ahn, **T.-W. Lee***, "Flexible Organic Solar Cells Using Graphene Electrodes", Korea-Japan Joint Forum (KJF) International Conference on Organic Materials for Electronics and Photonics, Haeundae Grand Hotel, Busan, Korea, August 29-31, 2013

128. K.-G. Lim, M.-R. Choi, H.-B. Kim, **T.-W. Lee***, "Systematic control of open circuit voltages and device lifetime in organic photovoltaic cells by work-function-tunable hole extraction layer", Korea-Japan Joint Forum (KJF) International Conference on Organic Materials for Electronics and Photonics, Haeundae Grand Hotel, Busan, Korea, August 29-31, 2013

129. S.-Y. Min, T.-S. Kim, B. J. Kim, H. Cho, Y.-Y. Noh, H. Yang, J. H. Cho, **T.-W. Lee***, "Large-scale printed organic nanowire electronics", Korea-Japan Joint Forum (KJF) International Conference on Organic Materials for Electronics and Photonics, Haeundae Grand Hotel, Busan, Korea, August 29-31, 2013

130. Y.-H. Kim, T.-H. Han, C.-L. Lee, **T.-W. Lee***, "Polyethylene Imine as an Electron Injection Interlayer for High Efficient Inverted Polymer Light-Emitting Diodes", The 13th International Meeting on Information Display (IMID), EXCO, Daegu, Korea, August 26-29, 2013

131. H. Cho, S.-H. Jeong, T.-H. Han, M. H. Park, Y.-H. Kim, Y. Lee, S.-Y. Min, **T.-W. Lee***, Large-Area Patterning of Organic Light-Emitting Diodes Using Highly-Aligned Organic Fibers", The 13th International Meeting on Information Display (IMID), EXCO, Daegu, Korea, August 26-29, 2013

132. T.-H. Han, M.-H. Park, **T.-W. Lee***. "Device Failure Mode Analysis of Highly Efficient and Stable Simple-Structure Organic Light-Emitting Diodes", The 13th International Meeting on Information Display (IMID), EXCO, Daegu, Korea, August 26-29, 2013

133. S.-Y. Min, T.-S. Kim, B. J. Kim, H. Cho, Y.-Y. Noh, H. Yang, J. H. Cho, **T.-W. Lee***, "Large-area Nano-Electronics and Lithography using Nanowire Printing", Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2013), KimDaeJung Convention Center, Gwangju, Korea, October 25, 2012 **(Invited)**

134. H. Cho, S.-H. Jeong, S.-Y. Min, T.-H. Han, M.-H. Park, Y.-H. Kim, **T.-W. Lee***, "Large-Area Cathode Separation for Organic Light-Emitting Diodes Using Highly-Aligned Polymer Fiber Arrays", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster)**

135. S.-H. Jeong, S.-H. Woo, T.-H. Han, M.-H. Park, **T.-W. Lee***, "Self-Organized Polymeric Anodes for Flexible Organic Light-Emitting Diodes", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster)**

136. Y.-H. Kim, T.-H. Han, H. Cho, S.-Y. Min, C.-L. Lee, **T.-W. Lee***, "Development of Air-Stable Polymer Electron Injection Interlayer for Efficient Inverted Polymer Light-Emitting Diodes", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster)**

137. T.-S. Kim, S.-Y. Min, **T.-W. Lee***, "Highly Aligned Polymer Nanofiber Transistors on Self-organized Polymeric Electrodes", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster)**

138. H. Kim, S.-H. Bae, T.-H. Han, K.-G. Lim, J.-H. Ahn, **T.-W. Lee***, "Flexible Organic Solar Cells Using Graphene Electrodes", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster).**

139. M.-H. Park, J.-Y. Kim, **T.-W. Lee***, "Lamination Encapsulation Method for Flexible Device", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster)**

140. H.-K. Seo, T.-S. Kim, S.-H. Bae, W. Xu, S.-Y. Lee, H.-C. Choi, J.-H. Ahn, **T.-W. Lee***, "Electronics Applications of Graphene Films Converted from Coal Tar Pitch", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster)**

141. Y. Lee, T.-S. Kim, S.-Y. Min, **T.-W. Lee***, "Highly Aligned Printed Copper Nanofiber Electrode Array", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster)**

142. T.-S. Lim, T.-H. Han, H.-K. Se, **T.-W. Lee***, "Role of Transition Metal Oxides in Graphene-Based Organic Optoelectronics", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster)**

143. K.-G. Lim, J.-M. Park, T.-L, Choi, **T.-W. Lee***, "A Bimolecular Crystal of Amorphous Polymer and PCBM Intercalated Structure for High-Efficiency PPV based Organic Photovoltaic Cells", 5th Asian Conference on Organic Electronics, POSTECH, Pohang, Korea, November 13-15, 2013 **(Poster)**

144. W. Xu, T.-S. Lim, H.-K. Seo, S.-Y. Min, H. Cho, M.-H. Park, Y.-H. Kim, **T.-W. Lee***, "N-DMBI-Doped Graphene Field-Effect Transistors with High Electron Mobility and Air-Stability", MRS Fall 2013, Hynes Convention Center, Boston, Massachusetts, USA, December 1-6, 2013 **(Poster)**

145. K. G. Lim, H. Y. Woo, **T.-W. Lee***, "Role of Conjugated Polyelectrolytes for High-Performance Organic Photovoltaics", MRS Fall 2013, Hynes Convention Center, Boston, Massachusetts, USA, December 1-6, 2013 **(Poster)**

146. S.-H. Jeong, S.-H. Woo, T.-H. Han, M.-H. Park, **T.-W. Lee***, "ITO-Free Organic Light-Emitting Diodes by Using Self-Organized Polymeric Anodes with Surface Plasmon", MRS Fall 2013, Hynes Convention Center, Boston, Massachusetts, USA, December 1-6, 2013 **(Poster)**

147. T.-S. Kim, S.-Y. Min, **T.-W. Lee***, "Large-Area Nanowire Transistors Based on Highly Aligned Metal Oxide", MRS Spring 2014, Moscone West Convention Center, San Francisco, California, USA, April 21-25, 2014 **(Poster)**

148. M.-H. Park, J.-Y. Kim, **T.-W. Lee***, "Flexible Encapsulation Using Lamination Process", MRS Spring 2014, Moscone West Convention Center, San Francisco, California, USA, April 21-25, 2014 **(Poster)**

149. Y. Lee, T.-S. Kim, S.-Y. Min, **T.-W. Lee***, "Highly Aligned Copper Nanofiber Electrode Array Printing", MRS Spring 2014, Moscone West Convention Center, San Francisco, California, USA, April 21-25, 2014 **(Poster)**

150. Y.-H. Kim, T.-H. Han, H. Cho, S.-Y. Min, C.-L. Lee, **T.-W. Lee***, "Development of Efficient Polymer Light-Emitting Diodes using Polyethylene imine Electron Injecting Interlayer", IC ME&D 2014, Hanyang University, Seoul, Korea, May 15-16, 2014 **(Poster)**

151. Y. Lee, T.-S. Kim, S.-Y. Min, S.-H. Jeong, H.-K. Seo, W. Xu, **T.-W. Lee***, "Large-area Printed Highly-aligned Cu Nanofiber Electrode Array", IC ME&D 2014, Hanyang University, Seoul, Korea, May 15-16, 2014 **(Poster)**

152. S.-Y. Min, **T.-W. Lee***, "Large-scale Organic Nanowire Printing, Lithography, and Electronics", IC ME&D 2014, Hanyang University, Seoul, Korea, May 15-16, 2014 **(Poster)**

153. Y.-H. Kim, T.-H. Han, H. Cho, S.-Y. Min, C.-L. Lee, **T.-W. Lee***, "Polyethylene Imine as an Ideal Interlayer for Highly Efficient Inverted Polymer Light-Emitting Diodes", The 5th International Conference on White LEDs and Solid State Lighting (WLED-5), Ramada Plaza Jeju Hotel, Jeju, Korea, June 1-5, 2014 **(Poster)**

154. Y. Lee, S.-H. Jeong, H. Kim, S.-Y. Min, T.-S. Kim, **T.-W. Lee***, "Directly Printed Designable Ag Nanofiber Based Transparent Electrode for Electronic Devices", International Meeting on Information Display 2014, Exco, Daegu, Korea, August 26-29, 2014 **(Poster)**

155. H.-K. Seo, T.-S. Kim, S.-H. Bae, W. Xu, R. Raj, H.-C. Choi, J.-H. Ahn, **T.-W. Lee***, "Graphene Films Converted from Cheap Solid Carbon Sources for High-Performance Electronic Devices", Recent Progress in Graphene Research (RPGR) 2014, Convention Center, Howard International House, Taipei, Taiwan, September 21-25, 2014 **(Poster)**.

156. S.-Y. Min, W. Xu, T.-S. Kim, B. J. Kim, H. Cho, H. Yang, Y.-Y. Noh, J. H. Cho & **T.-W. Lee***, "Large-Scale Electrohydrodynamic Organic Nanowire Printing, Lithography, and Electronics", American Physical Society (APS) March Meeting 2014, Denver, Colorado, USA, March 3-7, 2014 **(Invited)**.

157. S.-Y. Min, T.-S. Kim, B. J. Kim, Y.-Y. Noh, H. Yang, J. H. Cho and **T.-W. Lee**, "Large-area controllable nanowire printing, electronics and lithography", The 8th International Symposium on Organic Molecular Electronics (ISOME 2014), Tokyo University of Agriculture and Technology, Koganei, Tokyo, Japan, May 15-16, 2014 **(Invited)**

158. T.-H. Han, S.-H. Jeong, M.-H. Park, S.-H. Woo and **T.-W. Lee**, "Flexible organic light-emitting diodes using flexible electrodes for solid-state lighting", The 5th International Conference on White LEDs and Solid State Lighting (WLED-5), Ramada Plaza Hotel, Jeju, Korea, June 1-5, 2014 **(Invited)**

159. S.-H. Jeong, S.-H. Woo, T.-H. Han, M.-H. Park and **T.-W. Lee**, "Universal flexible polymeric anodes for simplified organic optoelectronics", SPIE Optics+Photonics 2012, San Diego Convention Center, San Diego, United States, August 19-21, 2014 **(Invited)**

160. Y. Lee, S.-H. Jeong, H. Kim, S.-Y. Min, T.-S. Kim and **T.-W. Lee**, "Directly Printed Designable Ag Nanofiber Based Transparent Electrode for Electronic Devices", The 14th International Meeting on Information Display (IMID2014), EXCO, Daegu, Korea, August 26-29, 2014 **(Poster)**

161. S.-Y. Min, T.-S. Kim, B. J. Kim, Y.-Y. Noh, H. Yang, J. H. Cho and **T.-W. Lee**, "Large-Area Printed Nanowire Electronics and Lithography", The 14th International Meeting on Information Display (IMID2014), EXCO, Daegu, Korea, August 26-29, 2014 **(Invited)**

162. W. Xu, H.-K. Seo, S.-Y. Min, H. Cho, T.-S. Lim, Y. Lee and **T.-W. Lee***, "Scalable Production and Air-Stable Doping of Aligned Graphene Nanoribbons", The 6th International Conference on Recent Progress in Graphene Research (RPGR2014), Howard International House, Taipei, Taiwan, September 21-25, 2014 **(Invited)**

163. T.-H. Han, M.-R. Choi, C.-W. Jeon, Y.-H. Kim, S.-K. Kwon and **T.-W. Lee**, "Ultra-High Efficiency Solution-Processed Small-Molecule OLEDs with a Simple Structure Using Universal Host Materials", The 14th International Discussion & Conference on Nano Interface Controlled Electronic Devices (IDC-NICE 2014), Samcheonggak, Seoul, Korea, October 8-11, 2014 **(Invited)**

164. S.-Y. Min, T.-S. Kim, B. J. Kim, Y.-Y. Noh, H. Yang, J. H. Cho and **T.-W. Lee**, "Organic Nanowire Electronics and Lithography on Large-area", The International Conference of Young Researchers on Advanced Materials (IUMRS-ICYRAM), the Hainan International Convention & Exhibition Center in Haikou, China, October 24-27, 2014 **(Invited)**

165. K.-G. Lim, H.-B. Kim, J. Jeong, H. Kim, J. Y. Kim, **T.-W. Lee**, "Boosting the power conversion efficiency of perovskite solar cells using self-organized polymeric hole extraction layers with high work function", 6th Asian Conference on Organic Electronics (A-COE 2014), National Cheng Kung University, Tainan, Taiwan, November 12-14, 2014 **(Invited)**

166. K.-G. Lim, H.-B. Kim, J. Jeong, H. Kim, J. Y. Kim, **T.-W. Lee**, "Boosting the Power Conversion Efficiency of Organic-Inorganic Hybrid Perovskite Solar Cells Using Self-Organized Polymeric Hole Extraction Layers with High Work Function", International Workshop on Flexible and Printable Electronics 2014 (IWFPE 2014), Le Win Hotel, Jeonju, Jeollabuk-do, November 5-7, 2014 **(Invited)**

167. K.-G. Lim, H.-B. Kim, J. Jeong, H. Kim, J. Y. Kim and **T.-W. Lee**, "Organometal halide perovskite solar cells using self-organized polymeric hole extraction layers with high work function", 2014 International Conference for Leading and Young Materials Scientists (IC-LYMS 2014), Sanya, China, December 21-25, 2014 **(Invited)**

168. K.-G. Lim, H.-B. Kim, J. Jeong, H. Kim, J. Y. Kim and **T.-W. Lee**, "High Efficiency Planar Heterojunction Organic-Inorganic Perovskite Solar Cells using Self-Organized Hole Extraction Layer with High Work Function", 2014 MRS Fall Meeting & Exhibit, Boston, Massachusetts, Boston, USA, November 30-December 5, 2014 **(Oral)**

169. T.-H. Han, M.-R. Choi, C.-W. Jeon, Y.-H. Kim, S.-K. Kwon and **T.-W. Lee**, "High Efficiency Simplified Solution-Processed Small-Molecule OLEDs with Universal Host Materials", 2014 MRS Fall Meeting & Exhibit, Boston, Massachusetts, Boston, USA, November 30-December 5, 2014 **(Oral)**

170. T.-H. Han, M.-H. Park, S.-H. Bae, H.-K. Seo, J.-H. Ahn, **T.-W. Lee**, "Flexible tandem organic light-emitting diodes with graphene anode", SPIE Photonics West 2015, The Moscone Center, San Francisco, California, USA, February 7-12, 2015 (**Invited**)

171. W. Xu, **T.-W. Lee**, "Organic Nanowire Synapses", International Workshop on Bioengineering Innovations, POSCO International Center, POSTECH, Pohang, Korea, February 23-24, 2015 (**Invited**)

172. **T.-W. Lee***, "Flexible tandem organic light-emitting diodes with graphene anode", 13th International Conference on Frontiers of Polymers and Advanced Materials (13th ICFPAM), Marrakesh, Morocco, March 30-April 2, 2015 (**Invited**)

173. K.-G. Lim, Y.-H. Kim, **T.-W. Lee***, "Organic/Inorganic Perovskite Optoelectronics: Solar Cells and LEDs", 7th International Conference on Electroceramics (ICE2015), Penn Stater Conference Center, State College PA, USA, May 13-16, 2015 (**Invited**)

174. **T.-W. Lee**, "Next Displays: Organic-inorganic hybrid perovskite light-emitting diodes", Perovskite Optoelectronics Workshop, POSCO International Center, Pohang, Korea, June 19, 2015 (**Invited**)

175. K.-G. Lim, Y.-H. Kim, H. Cho, J. Y. Kim, S. H. Im, **T.-W. Lee***, "Organic/Inorganic Perovskite Optoelectronics using Self-Organized Conducting Polymer Layers", Molecular Electronics and Bioelectronics (M&BE8), Tower Hall Funabori, Tokyo, Japan, June 22-24, 2015 (**Invited**)

176. K.-G. Lim, Y.-H. Kim, J. Y. Kim, S. H. Im, **T.-W. Lee***, "Organic/Inorganic Perovskite Optoelectronics for Solar Cells and Displays", 31st International Conference of the Polymer Processing Society, Jeju Island, Korea, Jun 7-11, 2015 (**Invited**)

177. T.-H. Han, M.-H. Park, S.-J. Kwon, S.-H. Bae, H.-K. Seo, J.-H. Ahn and **T.-W. Lee*** "Ultraflexible high-efficiency organic light-emitting diodes using graphene anode", SPIE Optics+Photonics 2015, San Diego Convention Center, San Diego, California, USA, August 10-13, 2015 (**Invited**)

178. W. Xu, S.-Y. Min, H. Hwang, **T.-W. Lee***, "Printed organic nanowire synaptic transistors", SPIE Optics+Photonics 2015, San Diego Convention Center, San Diego, California, USA, August 10-13, 2015 (**Invited**)

179. W. Xu, S.-Y. Min, H. Hwang and **T.-W. Lee**, "Printed Organic Nanowire Artificial Synapses", ACOE 2015, Beijing, China, October 28-31, 2015 (**Invited**)

180. **T.-W. Lee***, "Organic/Inorganic Hybrid Perovskite Emitters as a Next Generation Emitter", International Workshop on Flexible and Printable Electronics 2015 (IWFPE 2015), Le Win Hotel, Jeonju, Jeollabuk-do, November 4-6, 2014 (**Invited**)

181. **T.-W. Lee***, "Organic nanowire artificial synapses", 1st International Symposium on Emerging Functional Materials (IEFM 2015), Songdo Convensia, Incheon, Korea, November 4-6, 2015 (**Invited**)

182. T.-H. Han, M.-R. Choi, C.-W. Jeon, Y.-H. Kim, S.-K. Kwon and **T.-W. Lee***, "High-Efficiency Solution-Processed Small-Molecule Organic Light-Emitting Diodes with Simple Structure", Solid-State and Organic Lighting (SOLED), Light Energy and the Environment Congress, Soochow University Dushu Lake Campus, Suzhou, China, November 2-5, 2015 (**Invited**)

183. **T.-W. Lee**, "Air-stable chemical doping of graphene for organic electronics", A3 Symposium, Chikushi Hall (C-CUBE), Chikushi Campus, Kyushu University, Fukuoka 816-8580, Japan, November 9-12, 2015 (**Invited**)

184. **T.-W. Lee***, "Organic nanowire artificial synapses", 1st International Symposium on Emerging Functional Materials (IEFM 2015), Songdo Convensia, Incheon, Korea, November 4-6, 2015 (**Invited**)

185. H. Cho, S.-H. Jeong, T.-H. Han, S.-Y. Min, M.-H. Park, Y.-H. Kim, Y. Lee, W. Xu and **T.-W. Lee**, "Simple Large-Area Pixel Patterning for Flexible Organic Light-Emitting Diodes by Electro-hydrodynamic Organic Nanowire Printing", 2014 MRS Fall Meeting & Exhibit, Boston, Massachusetts, Boston, USA, November 30-December 5, 2014 **(Oral)**

186. Y. Lee, T.-S. Kim, S.-Y. Min, W. Xu, S.-H. Jeong, H.-K. Seo and **T.-W. Lee**, "Directly Printed Designable Metal Nanofiber Electrode for Large-area Electronics", 2014 MRS Fall Meeting & Exhibit, Boston, Massachusetts, Boston, USA, November 30-December 5, 2014 **(Oral)**

187. H. Kim, J.-W. Byun, S.-J. Kwon, S.-H. Bae, Y. Lee, S.-Y. Min, S.-H. Jeong, H.-K. Seo, J.-H. Ahn and **T.-W. Lee**, "Inverted Organic Solar Cells with CVD-grown Graphene Cathodes", 2014 MRS Fall Meeting & Exhibit, Boston, Massachusetts, Boston, USA, November 30-December 5, 2014 **(Poster)**

188. H. Kim, J.-W. Byun and **T.-W. Lee**, "Development of flexible planar heterojunction perovskite solar cells by simple bar-coating method", 25th International Photovoltaic Science and Engineering Conference, BEXCO, Busan, Korea, November 15-20, 2015 **(Poster)**

189. H. Kim and **T.-W. Lee**, "Efficient inverted organic solar cells with graphene cathode", The 26th International Conference on Molecular Electronics and Devices (IC ME&D), Seoul National University, Seoul, Korea, May 21-22, 2015 **(Oral)**

190. S.-H. Jeong, T.-H. Han, M.-H. Park, **T.-W. Lee**, "Flexible Anodes with Tunable Work Function for Simplified Tandem Organic Light-Emitting Diodes with Extreme Efficiency", International Workshop on Flexible and Printable Electronics 2015 (IWFPE 2015), Le Win Hotel, Jeonju, Jeollabuk-do, November 4-6, 2015 **(Poster)**

191. C. Wolf, Y.-H. Kim, H. Cho and **T.-W. Lee**, "Lead-Halide Organic-Inorganic Hybrid Perovskite-Processing of $CH_3NH_3PbBr_3$ for Optoelectronic Appliocations", 2015 MRS Fall Meeting & Exhibit, Boston, Massachusetts, Boston, USA, November 29-December 4, 2015 **(Poster)**

192. S.-Y. Min and **T.-W. Lee**, "Low-Temperature Processed Core-Sheath Conducting Nanowires for Flexible All-Wire Electronics", 2015 MRS Fall Meeting & Exhibit, Boston, Massachusetts, Boston, USA, November 29-December 4, 2015 **(Poster)**

193. H. Cho, J. S. Kim, C. Wolf and **T.-W. Lee**, "Efficient Organic/Inorganic Hybrid Perovskite Light-Emitting Diodes and Photovoltaics Using Two-Step Deposition Process", 2015 MRS Fall Meeting & Exhibit, Boston, Massachusetts, Boston, USA, November 29-December 4, 2015 **(Poster)**

194. Y. Lee, S.-Y. Min, S.-H. Jeong, T.-S. Kim, J. Won, H. Kim, J. K. Jeong and **T.-W. Lee**, "Highly-Aligned, Invisible, Printed Ag Nanofiber Electrode Array", 2015 MRS Fall Meeting & Exhibit, Boston, Massachusetts, Boston, USA, November 29-December 4, 2015 **(Oral)**

195. Y. Lee, S.-Y. Min, S.-H. Jeong, T.-S. Kim, J. Y. Won, H. Kim, J. K. Jeong and **T.-W. Lee***, "Additive Direct Printing for Siver Nanowire Electrode Array", SPIE Photonics west Opto 2016, The Moscone Center San Francisco, California, USA, February 13-18, 2016 **(Oral)**

196. H. Cho, S.-H. Jeong, M.-H. Park, Y.-H. Kim, C. Wolf, C.-L Lee, J. H. Heo, A. Sadhanala, N. Myoung, S. Yoo, S. H. Im, R. H. Friend, and **T.-W. Lee**, "Overcoming the electroluminescence efficiency limitations of perovskite light-emitting diodes", IC ME&D 2016, Busan National University, Busan, Korea, May 19-20, 2016 **(Poster)**

197. S. Ahn, H. Cho, Y.-H. Kim, C. Wolf and **T.-W. Lee**, "Anode Interfacial Modification using Self-doped Conducting Polymers for Efficient Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", IC ME&D 2016, Busan National University, Busan, Korea, May 19-20, 2016 **(Poster)**

198. **T.-W. Lee**, "High Efficiency Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", Japan Society of Applied Physics Meeting, Tokyo Institute of Technology, Tokyo, Japan, March 19, 2016 (**Invited**)

199. H. Cho, C. Wolf, H. J. Yun, J. S. Bae and **T.-W. Lee***, "High-Efficiency CsPbBr3 Perovskite Light-Emitting Diodes and Investigation on Recombination Mechanism", The 16th International Meeting on Information Display (IMID2016), ICC Jeju, Jeju, Korea, August 23-26, 2016 **(Oral, KIDS Awards Bronze Metal Paper)**

200. **T.-W. Lee**, "Next Light Emitters: Organometal Halide Perovskite Light-Emitting Diodes", The 16th International Meeting on Information Display (IMID2016), ICC Jeju, Jeju, Korea, August 23-26, 2016 (**Invited**)

201. **T.-W. Lee,** "Highly Efficient Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", International Conference of Electroluminescence and Optoelectronic Devices (ICEL2016), Sheraton Raleigh Hotel, Raleigh, USA, October 2-5, 2016 (**Invited**)

202. H.n Cho, Y.-H. Kim, **T.-W. Lee,** "Metal Halide Perovskite Light-Emitting Diodes Using Multi-Functional Conducting Polymers", International Conference on Advanced Polymeric Materials Commemorating the 40th Anniversary of the Polymer Society of Korea (2016 IUPAC-PSK40), International Convention Center Jeju, Jeju, Korea, October 4-7, 2016 (**Invited**)

203. **T.-W. Lee,** "Efficient Organometal Halide Perovskite Light-Emitting Diodes", The 14th International Conference on Frontiers of Polymers and Advanced Materials (ICFPAM2016), DCC, Daejeon, Korea, October 31-November 4, 2016 (**Invited**)

204. **T.-W. Lee**, "Solution-Processed p-Type Chemical Doping of Graphene for Flexible OLEDs", A3 Symposium, Buyeo Lotte Resort, Buyeo, Korea, October 30-November 3, 2016 (**Invited**)

205. M.-H. Park, S.-H. Jeong, C. Wolf and **T.-W. Lee***, "Synergetic Approach to Improve Recombination Rate and Charge Balance in Highly Efficient Perovskite LEDs", The 4th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), Ramada Plaza Jeju Hotel, Jeju, Korea, November 6-9, 2016 **(Poster)**

206. H. Cho, J. S. Kim, C. Wolf, H. J. Yun, J. S. Bae, **T.-W. Lee***, "Highly-Efficiency Perovskite Light-Emitting Diodes based on Mixed Cations", The 4th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), Ramada Plaza Jeju Hotel, Jeju, Korea, November 6-9, 2016 **(Poster)**

207. Y.-H. Kim, H. Cho, **T.-W. Lee***, "Bright Organic/Inorganic Hybrid Perovskite Light-Emitting Diodes", The 4th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), Ramada Plaza Jeju Hotel, Jeju, Korea, November 6-9, 2016 **(Poster)**

208. Y.-H. Kim, **T.-W. Lee***, "High Efficiency, Simplified, Solution-Processed Thermally Activated Delayed-Fluorescence Organic Light-Emitting Diodes", The 4th International

Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), Ramada Plaza Jeju Hotel, Jeju, Korea, November 6-9, 2016 **(Poster)**

209. S. Ahn, H. Cho, Y.-H. Kim, C. Wolf and **T.-W. Lee***, "Self-doped Conducting Polymer as Anode Interfacial Layer for Efficient Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", The 4th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), Ramada Plaza Jeju Hotel, Jeju, Korea, November 6-9, 2016 **(Poster)**

210. J.-M. Heo, H. Kim, **T.-W. Lee***, "Lead-free Inorganic Perovskites for Light-emitting Diodes", The 4th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), November 6-9, 2016, Ramada Plaza Jeju Hotel, Jeju, Korea **(Poster)**.

211. J. S. Kim, C. Wolf, H. Cho, and **T.-W. Lee***, "Highly Efficient and Stable Perovskite Light-Emitting Diodes Using Amino Acid Passivation", The 4th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), Ramada Plaza Jeju Hotel, Jeju, Korea, November 6-9, 2016 **(Poster)**

212. **T.-W. Lee**, "Next Electroluminescence Platform: Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", The 4th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2016), Ramada Plaza Hotel, Jeju, Korea, November 6-9, 2016 (**Invited**)

213. **T.-W. Lee**, "High Efficiency Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", OSA Light, Energy and the Environment Congress 2016, Solid-State Lighting (SSL), Kongresshalle am Zoo, Leipzig, Germany, November 14-17, 2016 (**Invited**)

214. **T.-W. Lee**, "High efficiency metal halide perovskite light-emitting diodes", 2nd International Conference on Organic Optoelectronics (ICOOE 2016), Ningbo Institute of Materials Technology & Engineering, Chinese Academy of Sciences (CAS), Ningbo, China, November 11-13, 2016 (**Keynote**)

215. **T.-W. Lee**, "Next Generation LEDs: Metal Halide Perovskite Light-Emitting Diodes", The 8th International Workshop on Flexible and Printable Electronics (IWFPE2016), National Intangible Heritage Center, Jeonju, Korea, November 23-24, 2016 (**Invited**)

216. **T.-W. Lee**, "Next Generation LEDs: Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", The 8th Asian Conference on Organic Electronics (A-COE 2016), Uji Obaku Plaza, Kyoto University, Kyoto, Japan, December 5-7, 2016 (**Invited**)

217. **T.-W. Lee**, "High efficiency organic-inorganic hybrid light-emitting diodes", 9th Singapore International Chemistry Conference (SICC-9), National University of Singapore, Singapore, December 11-14, 2016 (**Invited**)

218. **T.-W. Lee**, "High efficiency organic-inorganic hybrid perovskite solar cells and light-emitting diodes", International Conference on Materials for Energy Applications (ICOMEA), City University of Hong Kong, Hong Kong, January 3-6, 2017 (**Invited**)

219. **T.-W. Lee**, "Efficient Metal Halide Perovskite Light-Emitting Diodes", SPIE Photonics West 2017, The Moscone Center, San Francisco, United States, January 28-February 2, 2017 **(Invited)**

220. **T.-W. Lee**, "Next LEDs: Organomeal Perovskite Light-Emitting Diodes", KANEKA/SKKU International Symposium 2017, Sungkyunkwan University, Suwon, Korea, March 31, 2017 **(Invited)**

221. **T.-W. Lee**, "Organic and Organic-Inorganic Hybrid Artificial Synapses", 2017 MRS Spring Meeting & Exhibit, Phoenix, Arizona, USA, April 17-21, 2017 (**Oral**)

222. **T.-W. Lee**, "Ultrahigh-Efficiency Solution-Processed Small-Molecule Organic Light-Emitting Diodes Using Simple Structure", 2017 MRS Spring Meeting & Exhibit, Phoenix, Arizona, USA, April 17-21, 2017 (**Oral**)

223. S. Ahn, H. Kim, M.-H. Park, S.-H. Jeong and **T.-W. Lee**, "Self-Doped Conducting Polymer Compositions with Tunable Work Function for Efficient Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", 2017 MRS Spring Meeting & Exhibit, Phoenix, Arizona, USA, April 17-21, 2017 **(Poster)**

224. S.-J. Kwon, T.-H. Han, N. Li, T. Y. Ko, H.-K. Seo, S. Ryu, K. S. Kim and **T.-W. Lee** "Macromolecular Chemical Doping for Stable Graphene Electrode", 2017 MRS Spring Meeting & Exhibit, Phoenix, Arizona, USA, April 17-21, 2017 **(Poster)**

225. **T.-W. Lee**, "Fine Stiochiometric Tuning and Nanograin Engineering for Efficient Organic/Inorganic Hybrid Perovskite Light-emitting Diodes", 2017 MRS Spring Meeting & Exhibit, Phoenix, Arizona, USA, April 17-21, 2017 **(Oral)**

226. **T.-W. Lee**, "Artificial Synapses Using Organic and Organic-Inorganic Hybrid Materials", Small Science Symposium 2017-Flexible and Wearable Devices, The Hong Kong Polytech University, Hong Kong, May 14-17, 2017 **(Invited)**

227. **T.-W. Lee**, "Next Generation Light Emitters: Metal Halide Perovskites", IC ME&D 2017, Sogang University, Seoul, Korea, May 18-19, 2017 **(Invited)**

228. S.-J. Kwon, T.-H. Han, T. Y. Ko, N. Li, K. S. Kim, S. Ryu, **T.-W. Lee**, "Chemical p-Type Doping using Fluorinated Polymeric Acids for Extremely Stable Graphene Electrodes", IC ME&D 2017, Sogang University, Seoul, Korea, May 18-19, 2017 **(Poster)**

229. **T.-W. Lee**, "Next-Generation LEDs: Metal Halide Perovskite Light-Emitting Diodes", The 6th Sungkyun International Solar Forum, Sungkyunkwan University, Seoul, Korea, June 14-16, 2017 **(Invited)**

230. W. Xu, S.-Y. Min, H. Cho, Y.-H. Kim, H. Hwang, **T.-W. Lee**, "Artificial Synapses using Organic Nanowires and Organic-Inorganic Hybrid Perovskites", 9th International Conference on Materials for Advanced Technologies (ICMAT2017), Suntec, Singapore, June 18-23, 2017 **(Invited)**

231. H. Cho, Y.-H. Kim, J. Byun, S.-H. Jeong, M.-H. Park, **T.-W. Lee**, "Next Generation LEDs: Organometal Perovskite Light-Emitting Diodes", 9th International Conference on Materials for Advanced Technologies (ICMAT2017), Suntec, Singapore, June 18-23, 2017 **(Invited)**

232. **T.-W. Lee**, "Next-generation Light Emitters: Metal Halide Perovskites", The 10th National Conference on Organic Luminescence and Optoelectronic Properties (OEL2017), Taiyuan, Shanxi, China, July 7-10, 2017 **(Invited)**

233. **T.-W. Lee**, "Next Generation Display: Metal Halide Perovskite LEDs", The 17th International Meeting on Information Displays (IMID), BEXCO, Busan, Korea, August 28-31, 2017 **(Invited)**

234. H. Cho, J. S. Kim, Y.-H. Kim, C. Wolf, H. J. Yun, **T.-W. Lee**, "High-Efficiency Solution-Processed Perovskite Light-Emitting Diodes Based on Mixed Cations", The 17th International Meeting on Information Displays (IMID), BEXCO, Busan, Korea, August 28-31, 2017 **(Oral)**

235. Y.-H. Kim, **T.-W. Lee**, "Boosting the Luminescence Efficiency of Solution-Processed Thermally Activated Delayed-Fluorescence Organic Light-Emitting Diodes by Managing the Exciton Quenching and Charge Injection Capability", The 17th International Meeting on Information Displays (IMID), BEXCO, Busan, Korea, August 28-31, 2017 **(Oral)**

236. **T.-W. Lee,** "Highly Efficient Solution-Processed Small-Molecule Organic Light-Emitting Diodes Using Novel Transporting Host**",** SPIE 2017, San Diego, California, USA, August 6-10, 2017 **(Invited)**

237. H. Cho, Y.-H. Kim, H.-K. Seo, S.-H. Jeong, M.-H. Park, H. Kim, J. Byun, **T.-W. Lee,** "Next LEDs: Organic-Inorganic Hybrid Perovskite Light-Emitting Diodes", The 27th International Conference on Amorphous and Nanocrystalline Semiconductors (ICANS27), August 21-25, 2017 **(Invited)**

238. **T.-W. Lee,** "Metal Halide Perovskite Light-Emitting Diodes**",** 8th International Conference on Flexible and Printed Electronics (ICFPE 2017), Jeju, Korea, September 4-7, 2017 **(Invited)**

239. **T.-W. Lee, "**Brain-Inspired Organic and Organic-Inorganic Hybrid Artificial Synapses**",** International Symposium on Memory Devices for Abundant Data Computing, The Hong Kong Polytechnic University, Hong Kong, September 22-25, 2017, (**Invited**)

240. **T.-W. Lee,** "Metal Halide Perovskite Light-Emitting Diodes**",** International Workshop for Luminescence and Optoelectronic Materials and Devices, Beijing Jiaotong University (BJTU), Beijing, China, October 13-14, 2017 **(Invited)**

241. **T.-W. Lee**, "Flexible and Stretchable Organic Artificial Synapses", 2017 NEA Symposium of Emerging Materials Innovation, Lotte Hotel Seoul, Seoul, Korea, October 16-18, 2017 **(Invited)**

242. **T.-W. Lee**, "Flexible and Stretchable Organic Artificial Synapses", The 9th Asian Conference on Organic Electronics (A-COE) 2017, Daejeon, Korea, October 25-27, 2017 **(Invited)**

243. S.-J. Kwon, T.-H. Han, T. Y. Ko, N. Li, S. Ryu, K. S. Kim, **T.-W. Lee**, "Macromolecular p-Type Chemical Doping for Stable Graphene Anode", The 9th Asian Conference on Organic Electronics (A-COE) 2017, Daejeon, Korea, October 25-27, 2017 **(Poster)**

244. S. Ahn, M.-H. Park, S.-H. Jeong, H. Cho, Y.-H. Kim, C. Wolf, H. Kim, **T.-W. Lee**, "Synergetic Approaches for Efficient Perovskite Light-Emitting Diodes using Self-Doped Conducting Polymer", The 9th Asian Conference on Organic Electronics (A-COE) 2017, Daejeon, Korea, October 25-27, 2017 **(Poster)**

245. M.-H. Park, S.-H. Jeong, Y.-H. Kim, H. Kim, **T.-W. Lee**, "Effects of Additive-based Nanocrystal Pinning for High-Efficiency Perovskite LEDs", The 9th Asian Conference on Organic Electronics (A-COE) 2017, Daejeon, Korea, October 25-27, 2017 **(Poster)**

246. H. Kim, H.-K. Seo, M.-H. Park, S.-H. Jeong, J. Lee, Y.-H. Kim, S.-J. Kwon, T.-H. Han, S. Yoo, **T.-W. Lee**, "Replacement of ITO with Graphene Electrodes for Efficient Flexible Metal-Halide Perovskite Light-Emitting Diodes", The 9th Asian Conference on Organic Electronics (A-COE) 2017, Daejeon, Korea, October 25-27, 2017 **(Poster)**

247. Y. Lee, J.Y. Oh, Z. Bao, **T.-W. Lee**, "Stretchable Organic Nanowire Field-Effect Transistor", The 9th Asian Conference on Organic Electronics (A-COE) 2017, Daejeon, Korea, October 25-27, 2017 **(Poster)**.

248. **T.-W. Lee**, High Efficiency Metal Halide Perovskite LEDs for Next-Generation Displays, 1st Korea – Québec – France workshop on Nanomaterials and Advanced functional materials, Yonsei University, Seoul, Korea, November 13-17, 2017 (**Invited**)

249. M.-H. Park, S.-H. Jeong, H.-K. Seo, C. Wolf, Y.-H. Kim, H. Kim, J. S. Kim, H. Cho, **T.-W. Lee**, "Analysis of Effects of Additive-Based Nanocrystal Pinning Processs for Perovskite LEDs", 2017 MRS fall Meeting & Exhibit, Boston, Massachusetts, November 26-December 1, 2017 **(Poster)**

250. H. Cho, J. S. Kim, C. Wolf, H. J. Yun, Y.-H. Kim, J. S. Bae, H. Kim, J.-M. Heo, S. Ahn, **T.-W. Lee**, "High-Efficiency Solution-Processed Polycrystalline Perovskite Light-Emitting

Diodes Based on Cesium and Formamidinium Cations", 2017 MRS fall Meeting & Exhibit, Boston, Massachusetts, November 26-December 1, 2017 **(Poster)**

251. H. Cho, Y.-H. Kim, H.-H. Seo, S.-H. Jeong, M.-H. Park, H. Kim, J. Byun, **T.-W. Lee**, "Next-Generation Light-Emitting Materials-Metal Halide Perovskites", 2017 MRS fall Meeting & Exhibit, Boston, Massachusetts, November 26-December 1, 2017 **(Invited)**

252. Y.-H. Kim, C. Wolf, Y. T. Kim, G.-H. Lee, H. Cho, A. Sadhanala, C.-G. Park, R. Friend, **T.-W. Lee**, "Highly Efficient Light-Emitting Diodes Based on Ligand-Engineered Colloidal Organic-Inorganic Hybrid Perovskite Nanoparticles beyond Quantum Size", 2017 MRS fall Meeting & Exhibit, Boston, Massachusetts, November 26-December 1, 2017 **(Oral)**

253. Y. Lee, J. Y. Oh, T. R. Kim, X. Gu, Y. Kim, N. Wang, H.-C. Wu, R. Pfattner, John W.F. To, T. Katsumata, D. Son, J. Kang, Jeffery B.-H. Tok, **T.-W. Lee**, Z. Bao "Deformable Organic Nanowire Field-Effect Transistor", 2017 MRS fall Meeting & Exhibit, Boston, Massachusetts, November 26-December 1, 2017 **(Oral)**

254. **T.-W. Lee**, "p-Type Chemical Doping for Stable Graphene Anodes", The 10th International Conference on Advanced Materials and Devices (ICAMD2017), Ramada Plaza Jeju Hotel, Jeju, Korea, December 5-8, 2017 **(Invited)**

255. **T.-W. Lee**, "p-Type Chemical Doping for Stable Graphene Anodes", OPTIC2017, National Sun Yat-sen University, Kaohsiung, Taiwan, December 7-9, 2017 **(Invited)**

256. **T.-W. Lee**, "Highly aligned printed nanofibers for flexible electronics and neuromorphic artificial synaptic electronics", Electrospin 2018 International Conference, stiαs (Stellenbosch Institute for Advanced Study), Stellenbosch, South Africa, January 16-18, 2018 **(Invited)**

257. **T.-W. Lee**, "High Efficiency Metal Halide Perovskites", International Symposium on Energy Science and Technology (ISEST2018), Okinawa Institute of Science and Technology, Okinawa, Japan, January 22-26, 2018 **(Invited)**

258. **T.-W. Lee**, "Boosting the Electroluminescence Efficiency of Metal Halide Perovskite Light-Emitting Diodes", SNU-PolyU Joint Symposium on Flexible Organic and Perovskite Electronics, The Hong Kong Polytechnic University, Hong Kong, January 30, 2018 **(Invited)**

259. Y. Lee, J. Y. Oh, Z. Bao, **T.-W. Lee**, "Stretchable organic nanowire transistors", Electrospin 2018 International Conference, stiαs (Stellenbosch Institute for Advanced Study), Stellenbosch, South Africa, January 16-18, 2018 **(Oral)**

260. J.-M. Heo, H. Kim, **T.-W. Lee**, "Lead-Free Perovskite Light-Emitting Diodes using CsSnBr3", International Symposium on Energy Science and Technology (ISEST2018), Okinawa Institute of Science and Technology, Okinawa, Japan, January 22-26, 2018 **(Oral)**

261. S. Ahn, M.-H. Park, H. Cho, C. Wolf, Y.-H. Kim, H. Kim, S.-H. Jeong, **T.-W. Lee** "Crystallization and morphology control using soluble self-doped conducting polymer as hole-injection interfacial layer of organic-inorganic hybrid perovskite light-emitting diodes", International Symposium on Energy Science and Technology (ISEST2018), Okinawa Institute of Science and Technology, Okinawa, Japan, January 22-26, 2018 **(Oral)**

262. S.-I. Kim, Y. Lee, W. Xu, **T.-W. Lee** "Artificial Synapse Based on Polymer-Blended Perovskite", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Poster)**

263. S.-H. Jeong, H. Kim, M.-H. Park, Y. Lee, H.-K. Seo, T.-H. Han, S. Ahn, **T.-W. Lee** "Ideal Conducting Polymer Anode for Highly Efficient Perovskite Light-Emitting Diodes", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Oral)**

264. Y. Lee, J. Y. Oh, W. Xu, O. Kim, T. Kim, J. Kang, Y. Kim, D. Son, Jeffrey Tok, M. J. Park, Z. Bao, **T.-W. Lee** "Stretchable Organic Artificial Synapse for Wireless Communication and Biomimetic Motor System", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Oral)**

265. J.-M. Heo, H. Kim, **T.-W. Lee** "Lead-Free Tin-Based Perovskite for Light-Emitting Diodes", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Poster)**

266. J. S. Kim, H. Cho, **T.-W. Lee** "Efficient and Stable Perovskite Light-Emitting Diodes Using Defect passivation by Amine Additives", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Poster)**

267. H.-D. Lee, H. Kim, W. Cha, C.-L. Lee, D. Kim, H. Yang, **T.-W. Lee** "Structural Modulating Quasi-2D Perovskite for Efficient Light-Emitting Diodes", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Poster)**

268. S. Kim, Y.-H. Kim, M.-H. Park, **T.-W. Lee** "Metal Halide Perovskite Polycrystalline/Nanoparticle Bilayers for Efficient Perovskite Light-Emitting Diodes", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Poster)**

269. S. H. Jo, Y.-H. Kim, **T.-W. Lee** "Efficient Solar Cells Based on Ligand-Engineered CH3NH3PbBr3/CH3NH3Pbl3 Bilayers", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Poster)**

270. D. H. Kim, H. Jo, J. S. Kim, **T.-W. Lee** "Improving Efficiency and Stability of Perovskite Light-Emitting Diodes by Polymer Additives", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Poster)**

271. **T.-W. Lee** "Efficiency Metal Halide Perovskite Light-Emitting Diodes", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Invited)**

272. **T.-W. Lee** "Organic Nanofiber Neuromorphic and Deformable Electronics", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Invited)**

273. H. Kim, H.-K. Seo, M.-H. Park, S.-H. Jeong, J. Lee, Y.-H. Kim, S.-J. Kwon, T.-H. Han, S. Yoo, **T.-W. Lee** "Overcoming Intrinsic Exciton Quenching Problem of Metal-Halide Perovskite Light-Emitting Diodes by Use of Graphene Anode", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Oral)**

274. Y. Lee, J. Y. Oh, W. Xu, Z. Bao, **T.-W. Lee** "Organic Nanofiber Neuromorphic and Deformable Electronics", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Oral)**

275. M.-H. Park, J. Park, J. Lee, H. S. So, H. Kim, S.-H. Jeong, H. Lee, S. Yoo, **T.-W. Lee** "Effective Perovskite/Additive Hybrid Film for Extremely Efficient Perovskite Light-Emitting Diodes", 2018 MRS Spring Meeting & Exhibit, Phoenix, Arizona, April 2-6, 2018 **(Oral)**

276. **T.-W. Lee** "Synthesis of Colloidal Metal-Halide Perovskite Nanoparticles and Application on Efficient Light-Emitting Diodes", 2018 Colloid and Interface Symposium (COINS 2018), Sungkyunkwan University, Suwon, Korea, June 4-5, 2018 **(Oral)**

277. H. Cho, Y.-H. Kim, S.-H. Jeong, M.-H. Park, **T.-W. Lee** "Boosting the Efficiency in Perovskite Light-Emitting Diodes", The 7th Pacific Rim Conference on Lithography (PRCL), Phoenix jeju, Jeju, Korea, June 10-15, 2018 **(Oral)**

278. H. Cho, Y.-H. Kim, M.-H. Park, S.-H. Jeong, H. Kim, Y. Lee, **T.-W. Lee** "Metal Halide Perovskite Emitters and Their Display Applications", International Conference on Flexible Electronics, Hangzhou, China, July 16-17, 2018 **(Oral)**

279. S.-J. Kwon, T.-H. Han, T. Y. Ko, N. Li, S. Ryu, K. S. Kim, **T.-W. Lee** "Ultra-Stable p-Type Chemical Doping for Graphene Anode", The 7th International Conference on Microelectronics and Plasma Technology (ICMAP 2018), Songdo Convensia, Incheon, Korea, July 24-28, 2018 **(Oral)**

280. Y.-H. Kim, **T.-W. Lee** "Halide Perovskite Dot Emitters for Display Applications", The 18th International Meeting on Information Display (IMID 2018), BEXCO, Busan, Korea, August 28-31, 2018 **(Oral)**

281. **T.-W. Lee** "Neuromorphic Flexible Organic Afferent Nerves for Bio-Inspired Electronics", The 18th International Discussion & Conference on Nano Interface Controlled Electronic Devices (IDC-NICE 2018), Haeundae Centum Hotel, Busan, Korea, October 10-12, 2018 **(Invited)**

282. H. Cho, Y.-H. Kim, M.-H. Park, S.-H. Jeong, H. Kim, Y. Lee, **T.-W. Lee** "Metal Halide Perovskite Emitters and Their Display Application", The 12th International Conference on

Electroluminescence and Optoelectronic Devices (ICEL 2018), Booyoung Hotel & Resort Jeju, Jeju, Korea, October 14-17, 2018 **(Oral)**

283. **T.-W. Lee** "Universal Graphene Anode for Highly Efficient Organic and Perovskite Light-Emitting Diodes", International Symposium "Low Dimensional Materials for Optoelectronics" (LDMO 2018), Shenzhen, China, October 25-28, 2018 **(Invited)**

284. **T.-W. Lee** "High-Efficiency Halide Perovskite Nanoparticle Light-Emitting Diodes", 9th A3 Symposium on Emerging Materials: Nanomaterials for Electronics, Energy, and Environment, Kyoto, Japan, October 29-31, 2018 **(Oral)**

285. Y.-H. Kim, **T.-W. Lee** "Efficient Light-Emitting Diodes Based on Metal Halide Perovskite Nanoparticles beyond Quantum Size", The 5th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2018), Ramada Plaza Jeju Hotel, Jeju, Korea, November 11-14, 2018 **(Oral)**

286. S. Ahn, Y.-H. Kim, S.-H. Jeong, S. Kim, S.-H. Jo, **T.-W. Lee** "Highly Efficient Perovskite Light-Emitting Diodes Using Hole Injection Layer with Simultaneously Controlled Work Function and Acidity", The 5th International Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE 2018), Ramada Plaza Jeju Hotel, Jeju, Korea, November 11-14, 2018 **(Oral)**

287. **T.-W. Lee** "Flexible and Stretchable Organic Artificial Synapses for Sensory and Motor Nervous Systems of Bio-Inspired Electronics", 2018 MRS Fall Meeting & Exhibit, Boston, Massachusetts, November 25-30, 2018 **(Oral)**

288. Y.-H. Kim, H. Cho, M.-H. Park, S.-H. Jeong, S. Ahn, **T.-W. Lee** "Highly Efficient Light-Emitting Diodes based on Lead-Halide Perovskites", 2018 MRS Fall Meeting & Exhibit, Boston, Massachusetts, November 25-30, 2018 **(Oral)**

289. **T.-W. Lee**, M.-H. Park, S.-H. Jeong, H. Cho "Highly Efficient Light-Emitting Diodes based on Lead-Halide Perovskites", 3rd International Conference on Organic Optoelectronics (ICOOE 2018), China, November 30-December 2, 2018 **(Oral)**

290. **T.-W. Lee** "Highly Efficient Light-Emitting Diodes based on Lead-Halide Perovskites", The 10th Asian Conference on Organic Electronics (A-COE 2018), City University of Hong Kong, Hong Kong, December 5-8, 2018 **(Oral)**

291. **T.-W. Lee** "Interfacial Modification in Metal Halide Perovskite Based Solar Cells", Optics & Photonics Taiwan, International Conference – Annual Meeting of Taiwan Photonics Society (OPTICS 2018), Taiwan Campus of National Chiao Tung University, Taiwan, December 6-8, 2018 **(Oral)**

292. **T.-W. Lee** "Flexible and Stretchable Organic Artificial Nervous Systems for Bioinspired Electronics", A3 Foresight Program (Atami), Atami, Japan, January 18-20, 2019 **(Oral)**

293. J. S. Kim, **T.-W. Lee** "Increased luminescent efficiency of perovskite light emitting diodes based on modified two-step deposition method providing gradient concentration", A3 Foresight Program (Atami), Atami, Japan, January 18-20, 2019 **(Poster)**

294. **T.-W. Lee**, "High-efficiency Halide Perovskite Nanoparticle Light-emitting Diodes", Flex & MSTC 2019, Monterey, California, February 18-21, 2019 **(Invited)**

295. **T.-W. Lee,** "Overcoming Fundamental Limitations for High-Efficiency Polycrystalline Perovskite Light-Emitting Diodes", Interfaces in Organic and Hybrid Thin-Film Optoelectronics(INFORM 2019), Spain, March 3-5, 2019 **(Invited)**

296. **T.-W. Lee**, "Organic Artificial Nerves for Neuromorphic Electronics", The International Conference on Molecular Electronics and Devices (IC ME&D 2019), Paradise Hotel Busan, Busan, Korea, May 9-10, 2019 **(Invited)**

297. D.-G. Seo, **T.-W. Lee**, "Modulating Decay Time by Changing Polymer Structure of Organic Transistor", The International Conference on Molecular Electronics and Devices (IC ME&D 2019), Paradise Hotel Busan, Busan, Korea, May 9-10, 2019 **(Poster)**

298. S. Kim, **T.-W. Lee**, "Perovskite polycrystalline/nanoparticle bilayer for efficient perovskite light-emitting diode", The International Conference on Molecular Electronics and Devices (IC ME&D 2019), Paradise Hotel Busan, Busan, Korea, May 9-10, 2019 **(Poster)**

299. M.-H. Park, **T.-W. Lee**, "Core-Shell-Mimicked Polycrystalline Nanograins for Efficient Perovskite Light-Emitting Diodes", The International Conference on Molecular Electronics and Devices (IC ME&D 2019), Paradise Hotel Busan, Busan, Korea, May 9-10, 2019 **(Invited)**

300. **T.-W. Lee**, "Flexible/Stretchable Organic Artificial Nerves", 1st Workshop on Neuromorphic Organic Devices, Ferrara, Italy, June 12-14, 2019 **(Invited)**

301. **T.-W. Lee**, "Organic Artificial Nerves", Photonics & Electromagnetics Research Symposium (PIERS 2019), University of Rome "La Sapienza", Rome, Italy, June 17-20, 2019 **(Invited)**

302. **T.-W. Lee**, "High-Efficiency Polycrystalline Metal Halide Perovksite Light-Emitting Diodes", The 8th Sungkyun International Solar Forum (SISF 2019), 600th anniversary hall, SKKU, Seoul, Korea, June 19-21, 2019 **(Invited)**

303. **T.-W. Lee**, "Flexible and Stretchable Organic Neuromorphic Systems for Bio-inspired Electronics", OSA Advanced Photonics 2019, Burlingame, California, USA, July 29-August 1, 2019 **(Invited)**

304. H. Zhou, **T.-W. Lee**, "Air Stable Stretchable Color Conversion Layer Using Perovsktie Nanocomposites", International Meeting on Information Display(IMID) 2019, Gyeongju, Korea, August 27-30, 2019 **(Oral)**

305. S. J. Han, **T.-W. Lee**, " Stretchable Graphene/Silver Nanowire Electrodes with High Work Function", International Meeting on Information Display(IMID) 2019, Gyeongju, Korea, August 27-30, 2019 **(Poster)**

306. **T.-W. Lee**, "Highly Efficient Polycrystalline Perovskite Light-Emitting Diodes using Nanograin Engineering", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Oral)**

307. G. T. Go, **T.-W. Lee**, "Achieving long-term retention in organic synaptic transistors: microstructure-dependent synaptic plasticity", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

308. N. Kim, **T.-W. Lee**, "How molecular design of donor-acceptor copolymers affects the synaptic plasticity of organic synaptic transistors", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

309. D. H. Kim, **T.-W. Lee**, "High-efficiency perovskite light-emitting diodes using polymeric interlayer", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

310. S. Kim, **T.-W. Lee**, "Efficient Perovskite Light-Emitting Diodes Using Ultrathin Monolayer", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

311. J. S. Kim, **T.-W. Lee**, "Modified two-step deposition method for highly efficient perovskite light-emitting diodes providing gradient concentration", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

312. J. Park, **T.-W. Lee**, "High-Efficiency Printed Metal Halide Perovskite Nanoparticle Light-Emitting Diodes", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

313. D.-G. Seo, **T.-W. Lee**, "Modulating Synaptic Decay of Organic Synaptic Transistors for Versatile Neuromorphic Electronics", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

314. E. Yoon, **T.-W. Lee**, "Stabilizing Ruddlesden-Popper Perovskite Light Emitting Diodes by double defect passivation with hygroscopic polymer", International Symposiuim on Organic

and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

315. H.-D. Lee, **T.-W. Lee**, "Efficient Quasi-2D Perovskite Light-Emitting Diodes with Controlled Nanostructures", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

316. K. Y. Jang, **T.-W. Lee**, "Fabrication of Efficient Blue Emitting FAPb(Br/Cl)3 Nanoparticles via Post-treatment with Didodecyldimethylammonium Halide", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

317. S. H. Jo, **T.-W. Lee**, "Ligand-engineered perovskite nanoparticles for photovoltaic application", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

318. J.-M. Heo, **T.-W. Lee**, "Ion-transport barrier through graphene for efficient perovskite light-emitting diodes", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

319. H. Zhou, **T.-W. Lee**, "Exploiting the Moisture Assisted Passivation of Organo-Metal Hybrid Perovskite Quantum Dots", International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Poster)**

320. **T.-W. Lee**, "Boosting electroluminescent efficiency of polycrystalline lead halide perovskite light emitting diodes", SPIE Optics + Photonics Exhibition 2019, San Diego Convention Center, San Diego, United States, August 11-15, 2019 **(Oral)**

321. **T.-W. Lee**, "Flexible and Stretchable Organic Artificial Nerves", The 16th U.S.-Korea Forum on Nanotechnology, University of California, San Diego (UCSD), Qualcomm Institute, California, United States, September 23-24, 2019 **(Oral)**

322. **T.-W. Lee**, "Boosting Efficiency of Polycrystalline Perovskite Light Emitting Diodes by Nanograin Engineering", 5th International Conference on Perovskite Solar Cells and Optoelectronics (PCSO-2019), Lausanne, Switzerland, September 30-October 2, 2019 **(Oral)**

323. **T.-W. Lee**, "Flexible Bio-Inspired Organic Artificial Sensory Nervous Systems", The 4th International Conference on Active Materials and Soft Mechatronics (AMSM 2019), Sheraton Grand Incheon Hotel, Incheon, Republic of Korea, October 16-19, 2019 **(Oral)**

324. **T.-W. Lee**, "Nanograin Engineering for High-Efficiency Metal Halide Perovskite Light-Emitting Diodes", The 5th International Conference on Advanced Electromaterials (ICAE 2019), Ramada Plaza Jeju Hotel, Jeju, Korea, November 5-8, 2019 **(Oral)**

325. **T.-W. Lee**, “Flexible and Stretchable Artificial Nerve Electronics for Neuromorphic Computing, Soft Robotics, and Neuroprosthetics” The 11th Asian Conference on Organic Electronics (ACOE 2019), New Taipei City, Taiwan**,** November 6-9, 2019 **(Oral)**

326. **T.-W. Lee**, “Highly Efficient Polycrystalline Perovskite Light-Emitting Diodes using Nanograin Engineering”, International Symposiuim on Organic and Perovskite Electronics (ISOPE) 2019, Bld 43-1, Seoul National University, Seoul, Korea, August 18-20, 2019 **(Oral)**

327. K. Y. Jang, **T.-W. Lee**, “Synthesis of highly efficient blue-emitting perovskite nanoparticles for light-emitting diodes”, A3 Program Joint Seminar 2019, Huangshan, China, November 22-25, 2019 **(Poster)**

328. **T.-W. Lee**, “Highly Efficient Hybrid Perovskite Nanoparticle Light-Emitting Diodes Using Mixed Cation”, Material Research Society (MRS) fall 2019, Boston, Massachusetts, United States, December 1-6, 2019 **(Oral)**

329. H. Zhou, **T.-W. Lee**, “Exploiting the Moisture Assisted Passivation of Organo-Metal Hybrid Perovskite Nanocrystals”, Material Research Society (MRS) fall 2019, Boston, Massachusetts, United States, December 1-6, 2019 **(Oral)**

330. H.-D. Lee, **T.-W. Lee**, “Inkjet Printed Metal Halide Perovskite for Light-Emitting Diodes—From Bulk Perovskite To Perovskite Nanoparticles”, Material Research Society (MRS) fall 2019, Boston, Massachusetts, United States, December 1-6, 2019 **(Poster)**

331. J. Park, **T.-W. Lee**, “High-Efficiency Printed Metal Halide Perovskite Nanoparticle Light-Emitting Diodes”, Material Research Society (MRS) fall 2019, Boston, Massachusetts, United States, December 1-6, 2019 **(Oral)**

332. J. S. Kim, **T.-W. Lee**, “Proton-Transfer-Induced 3D/2D Hybrid Perovskite for Stable Light-Emitting Diodes”, Material Research Society (MRS) fall 2019, Boston, Massachusetts, United States, December 1-6, 2019 **(Oral)**

333. **T.-W. Lee,** “Overcoming lifetime limitation on metal halide perovskite emitters and their display applications”, Korean Physical Society (KPS) Spring 2020, Virtual conference, July 13-15, 2020 **(Invited)**

334. **T.-W. Lee,** “Overcoming instability of metal halide perovskite emitters and their display applications” SPIE Optics + Photonics Exhibition 2020, Virtual conference, August 24-September 4, 2020 **(Invited)**

335. J. Park, Y.-H. Kim, **T.-W. Lee***, "Polysilazane Assisted In-Situ Crystallization of Stable Perovskite@SiO2 Composite for Wide Color Gamut WLEDs", The 12th Asian Conference on Organic Electronics (A-COE 2020), Busan, November 8-10, 2020 **(Poster)**

336. **T.-W. Lee**, "Organic Neuromorphic Electronics for Emulation of Biological Nervous Systems", The 12th Asian Conference on Organic Electronics (A-COE 2020), Busan, November 8-10, 2020 **(Invited)**

337. H. Kim, J. S. Kim, J.-M Heo, M. Pei, I.-H Park, Z. Liu, H. J. Yun, M.-H. Park, S.-H. Jeong, Y.-H. Kim, J. Park, O. Emad, S. Nagane, A. Sadhanala, L. Zhang, J. J. Kweon, S. K. Lee, H. Yang, H. M. Jang, R. H. Friend, K. P. Loh, M. K. Nazeeruddin, N.-G. Park and **T.-W. Lee*,** "Overcoming the lifetime limitation of organic-inorganic hybrid metal halide perovskite emitters", The 12th Asian Conference on Organic Electronics (A-COE 2020), Busan, November 8-10, 2020 **(Poster)**

338. J. S. Kim, H. Kim, J.-M Heo, M.-H. Park, and **T.-W. Lee*,** "Core/shell structured metal halide perovskites for high-efficiency light-emitting diodes and their display applications", nanoGe fall meeting 2020, Virtual, October 20-23, 2020 **(Plenary)**

339. H. Kim, J. S. Kim, J.-M Heo, **T.-W. Lee*,** "Overcoming instability of metal halide perovskite emitters and their display applications", 2020 SPIE Optics + Photonics, Virtual, August 24-September 4, 2020 **(Invited)**

340. **T.-W. Lee*,** "Metal halide perovskite light emitters and their display applications", Ecomat Webinar, Virtual, November 18, 2020 **(Invited)**

341. J. S. Kim, H. Kim, J.-M Heo, M.-H. Park, and **T.-W. Lee*,** "Core/shell structured metal halide perovskites for highly efficient and stable light-emitting diodes", Japan OLED forum 2020, Chiba, December 14-16, 2020 **(Invited)**

342. K. Y. Jang, J. Park, **T.-W. Lee*,** "Synthesis of Efficient Blue Emitting CsPb(Br/Cl)3 Nanoparticles via Post-Treatment with short organic ligands and LED fabrication", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Poster)**

343. Y. Lee, J. Y. Oh, Y. Kim, A. Chortos, W. Xu, D.-G. Seo, Z. Bao, and **T.-W. Lee*** "Bio-Inspired Organic Artificial Nerves for Peripheral Nerve Emulation", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Invited)**

344. **T.-W. Lee**, "Bio-inspired neuromorphic electronics for artificial nervous systems", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Invited)**

345. **T.-W. Lee,** "Flexible, Stretchable Bio-Inspired Artificial Nervous Systems ", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Invited (tutorial))**

346. D.-G. Seo, Y. Lee, H. Yang, C. Yang, S.-W. Kim, and **T.-W. Lee*** "Engineering of Synaptic Plasticity of Ion-gel Gated Synaptic Transistors for Neuromorphic Computing and Artificial Sensory Nerves", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Oral)**

347. S. H. Jo, S. Ahn, and **T.-W. Lee*** "Ligand-engineered perovskite nanoparticles for photovoltaic application", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Oral)**

348. G.-T. Go, Y. Lee, D.-G. Seo, Mingyuan Pei, W. Lee, H. Yang, **T.-W. Lee*** "Elucidating Microstructure-Dependent Synaptic Plasticity of Ion-Gel Gated Semi-Crystalline Polymer Synaptic Transistors", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Oral)**

349. H. Zhou, J. Park, Y. Lee, J.-M Park, J.-H. Kim, J. S. Kim, H.-D. Lee, S. H. Jo, X. Cai, L. Li, X. Sheng, H. J. Yun, J.-W. Park, J.-Y. Sun, and **T.-W. Lee*,** "Water Passivation of Perovskite Nanocrystals Enables Air-Stable Intrinsically-Stretchable Color-Conversion Layers for Stretchable Displays", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Poster)**

350. H. Kim, J. S. Kim, J.-M Heo, M. Pei, I.-H Park, Z. Liu, H. J. Yun, M.-H. Park, S.-H. Jeong, Y.-H. Kim, J.-W. Park, O. Emad, S. Nagane, A. Sadhanala, L. Zhang, J. J. Kweon, S. K. Lee, H. Yang, H. M. Jang, R. H. Friend, K. P. Loh, M. K. Nazeeruddin, N.-G. Park and **T.-W. Lee***, "Proton-Transfer-Induced 3D/2D Hybrid Perovskites Suppress Ion Migration and Reduce Luminance Overshoot", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Oral)**

351. J. Park, S. Choi, S. Kim, J. S. Kim, and **T.-W. Lee*** "Core-shell structure perovskite nanoparticles with atomic surface passivation for highly-efficient pure-red emitting perovskite light-emitting diodes", 2020 Virtual MRS Spring/Fall Meeting & Exhibit, Virtual, November 20-December 5, 2020 **(Poster)**

352. H. Zhou, J. Park, Y. Lee, J.-M Park, J.-H. Kim, J. S. Kim, H.-D. Lee, S. H. Jo, X. Cai, L. Li, X. Sheng, H. J. Yun, J.-W. Park, J.-Y. Sun, and **T.-W. Lee*** "Air-Stable Stretchable Light-Emitting Devices without using Encapsulations", International Meeting on Information Display 2020 (IMID 2020), Virtual, August 24-28, 2020 **(Oral)**

353. J. S. Kim, H. Kim, J.-M Heo, M.-H. Park, and **T.-W. Lee*,** "High-efficiency core-shell or core-shell mimicked perovskite emitters and light-emitting diodes", International Online Conference on Hybrid Materials
and Optoelectronic Devices (HYBRIDOE), nanoGe 2020, Virtual, December 15-17, 2020 **(Invited)**

354. Y.-H. Kim, S. Kim, A. Kakekhani, A. Rappe, **T.-W. Lee*** "Comprehensive defect suppression of halide perovskite nanoparticle for high-efficiency light-emitting diodes", MRS spring 2021 (Materials Research Society spring meeting & exhibit), Virtual, April 17-23, 2021 **(Invited)**

355. Y.-H. Kim, S. Kim, A. Kakekhani, A. Rappe, **T.-W. Lee*** "Comprehensive defect suppression for highly efficient perovskite light-emitting diodes", SPIE Optics+ Photonics 2021, San Diego, August 1-5, 2021 **(Invited)**

356. Y.-H. Kim, S. Kim, Ar. Kakekhani, A. Rappe, **T.-W. Lee*** "High-Efficiency Perovskite Nanocrystal Light-Emitting Diodes via Defect Suppression", IMID 2021, Hybrid, August 25-27, 2021 **(Oral)**

357. J. S. Kim, H. Kim, J.-M Heo, and **T.-W. Lee*,** "Overcoming instability of metal halide perovskite emitters", SPIE photonics west 2021 (the international society for optics and photonics), Virtual, March 6-11, 2021 **(Invited)**

358. Y.-H. Kim, S. Kim, A. Kakekhani, A. Rappe, **T.-W. Lee*** "Comprehensive Defect Passivation Strategies for Efficient Perovskite Light-Emitting Diodes", IUMRS-ICA 2021 (The 22nd International union of materials research societies-international conference in Asia), Jeju, October 3-8, 2021 **(Keynote)**

359. Y.-H. Kim, S. Kim, A. Kakekhani, A. Rappe, **T.-W. Lee*** "Highly efficient perovskite light-emitting diodes via defect suppression", ICAE 2021 (The 6th International Conference on Advanced Electromaterials), Jeju, November 9-12, 2021 **(Invited)**

360. Y.-H. Kim, S. Kim, A. Kakekhani, A. Rappe, **T.-W. Lee*** "Highly Efficient Colloidal Perovskite Nanocrystal Light-Emitting Diodes via Defect Suppression", IC ME&D 2021, Seoul, July 8-9, 2021 **(Poster)**

361. Y.-H. Kim, S. Kim, A. Kakekhani, A. Rappe, **T.-W. Lee*** "Comprehensive Defect Passivation Strategies for Efficient Perovskite Nanocrystal Light-Emitting Diodes", ACOE 2021 (The Asian Conference on Organic Electronics), Online, September 2-4, 2021 **(Invited)**

362. **T.-W. Lee,** "Bio-inspired Neuromorphic Electronics for Artificial Nervous Systems", The 48th World Polymer Congress (IUPAC-MACRO2020+), Jeju, May 16-20, 2021 **(Invited)**

363. Y. Kim, A. Chortos, W. Xu, Y. Lee, J. Y. Oh, H.-L. Park, D.-G. Seo, S. Park*, Z. Bao*, **T.-W. Lee*,** "Bio-Inspired Organic Artificial Peripheral Nervous Systems", E-MRS 2021, Virtual, May 31-June 3, 2021 (**Invited)**

364. **T.-W. Lee,** "Flexible and Stretchable Organic Artificial Nerves", The 3rd International Symposium on Memory Devices for Abundant Data Computing, Virtual, May 26-29, 2021 **(Invited)**

365. J. Park, S. H. Lee, **T.-W. Lee*,** "In-situ Synthesis and Encapsulation of Highly Stable Perovskite-Inorganic Polymer Composites", 2021 International Conferences on Molecular Electronics and Devices (IC ME&D), Seoul, July 8-9, 2021 **(Poster)**

366. K. Y. Jang, **T.-W. Lee*,** "Fabrication of Highly-efficient Blue-emitting PeLEDs by Preventing an Exciton Quenching at the Interface between PEDOT:PSS", 2021 International Conferences on Molecular Electronics and Devices (IC ME&D), Seoul, July 8-9, 2021 **(Poster)**

367. H. Zhou, **T.-W. Lee***, "Air-Stable Intrinsically-Stretchable Color-Conversion Layers for Stretchable Displays", 2021 International Conferences on Molecular Electronics and Devices (IC ME&D), Seoul, July 8-10, 2021 **(Poster)**

368. K.-N. Kim, H.-L. Park, D.-G. Seo, G.-T. Go, J. Park and **T.-W. Lee** "Visualization of Synaptic Plasticity Using Organic Light-Emitting Synaptic Transistors", 2021 International Conferences on Molecular Electronics and Devices (IC ME&D), Seoul, July 8-10, 2021 **(Poster)**

369. D.-H. Kang, H.-L. Park, J. S. Kim, G.-T. Go, I.-H Park, J.-M Heo, **T.-W. Lee*,** "Improving Long-Term Plasticity of Metal Halide Perovskite-Based Artificial Synapses by Adopting Ferroelectricity", 2021 International Conferences on Molecular Electronics and Devices (IC ME&D), Seoul, July 8-10, 2021 **(Poster)**

370. M.-J. Sung, D.-G. Seo, G.-T. Go, C. Yang and **T.-W. Lee*,** "Influence of Lamellar Orientation in Synaptic Plasticity of Ion-Gel Gated Organic Synaptic Transistors", 2021 International Conferences on Molecular Electronics and Devices (IC ME&D), Seoul, July 8-9, 2021 **(Poster)**

371. G.-T. Go, D.-G. Seo, **T.-W. Lee*,** "Intrinsically Stretchable Organic Semiconductor for Wearable Neuro-inspired Electronics", 2021 International Conferences on Molecular Electronics and Devices (IC ME&D), Seoul, July 8-9, 2021 **(Poster)**

372. E. Yoon, J. S. Kim, J.-M Heo, **T.-W. Lee***, "In-situ fabrication of highly luminescent halide perovskite thin films by understanding of solution chemistry with different coordinating solvent", 2021 International Conferences on Molecular Electronics and Devices (IC ME&D), Seoul, July 8-9, 2021 **(Poster)**

373. **T.-W. Lee**, "High-efficiency perovskite light-emitting diodes via comprehensive defect suppression", IDC-NICE 2021 (The 20th International Discussion & Conference on Nano Interface Controlled Electronic Devices), Virtual, October 6-7, 2021 (**Invited**)

374. S. J. Han, H. Zhou, **T.-W. Lee***, "Work Function Tunable Intrinsically Stretchable Silver Nanowire/Graphene Electrodes based Passive Matrix Organic Light-Emitting Diodes", The 12th International Conference on Advanced Materials and Devices (ICAMD 2021), Jeju, December 6-10, 2021 (**Poster**)

375. H. Zhou, S. J. Han, **T.-W. Lee***, "A Universal Cathode Lamination Protocol for Intrinsically Stretchable Light-Emitting Didoes ", The 12th International Conference on Advanced Materials and Devices (ICAMD 2021), Jeju, December 6-10, 2021 (**Poster**)

376. **T.-W. Lee**, "High Efficiency Halide Perovskite Nanoparticle Light-emitting Diodes", APC 2021 (11th Asian Photochemistry Conference), Seoul (online), November 1-4, 2021 (**Keynote**)

377. S. Kim, **T.-W. Lee ***, "High-Efficiency Perovskite Nanocrystal Light-Emitting Diodes via Reduced Interfacial Quenching", ACOE 2021 (The Asian Conference on Organic Electronics), Online, September 2-4, 2021 (**Poster**)

378. **T.-W. Lee**, "Two-Dimensional Graphene and MXene for Flexible and Stretchable Optoelectronic Applications", A3 Symposium, Seoul, 2021 (**Invited**)

379. S. Kim, **T.-W. Lee***, "Efficient perovskite nanocrystal light-emitting diodes via defect suppression", IC ME&D 2022, Daejeon, May 19-20, 2022 (**Oral**)

380. J. Park, S. H. Lee, S.-H. Cho, **T.-W. Lee***, "Ligand-Free In-Situ Synthesis of Stable Perovskite-Inorganic Polymer Composites", 2022 MRS spring, Hawaii, May 8-13, 2022 (**Poster**)

381. S. H. Jo, W. Yang, and **T.-W. Lee***, "Strategies for Fabricating Efficient Perovskite Nanocrystal Solar Cell", 2022 MRS spring, Hawaii, May 8-13, 2022 (**Oral**)

382. H. Zhou, S. J. Han, **T.-W. Lee***, "A Universal Cathode Lamination Protocol for Intrinsically Stretchable Light-Emitting Didoes ", 2022 MRS spring, Hawaii, May 8-13, 2022 (**Poster**)

383. G.-T. Go, W. Lee, **T.-W. Lee***, "Realization of Long-Term Plasticity in Ion-Gel Gated Monolayer Graphene Synaptic Transistor", 2022 MRS spring, Hawaii, May 8-13, 2022 (**Poster**)

384. H. Kwon, H. Zhou, S. J. Han, **T.-W. Lee***, "Low-Work-Function Polymeric Electrode with High Conductivity", IC ME&D 2022, Daejeon, May 19-20, 2022 (**Poster**)

385. C. Kim, D.-G. Seo, C. Yang, and **T.-W. Lee*,** "Modulating Synaptic Properties in Ion-gel Gated Organic Synaptic Transistors (IGOSTs) by Controlling Polymer Backbone Structure", IC ME&D 2022, Daejeon, May 19-20, 2022 (**Poster**)

386. H. Zhou, S. J. Han, A. K. Harit, D. H. Kim, D. Y. Kim, Y. S. Choi, H. Kwon, K.-N. Kim, G.-T. Go, H. J. Yun, B. H. Hong, M. C. Suh, S. Y. Ryu, H. Y. Woo* and **T.-W. Lee*,** "Intrinsically Stretchable Two-Dimensional-Contact Electrodes for Highly-Efficient Organic Light-Emitting Diodes", NT22, Suwon, June 19-24, 2022 (**Poster**)

387. G.-T. Go, W. Lee, **T.-W. Lee***, "Synaptic Plasticity of Ion-gel Gated Monolayer Graphene Synaptic Transistor", NT22, Suwon, June 19-24, 2022 (**Poster**)

388. **T.-W. Lee,** "Suppression of defects and ion-migration for efficient perovskite emitters and light-emitting diodes", 2022 MRS spring, Online, May 8-13, 2022 (**Invited**)

389. Y. Lee, D.-G. Seo, G.-T. Go, Z. Bao, and **T.-W. Lee**, "Versatile Neuromorphic Application of Ion-gel Gated Synaptic Transistors: From Neuromorphic computing to Nervetronics", the 20th International Symposium on the Physics of Semiconductors and Applications , Jeju, July 17-21, 2022 (**Invited**)

390. **T.-W. Lee**, "Exploiting the full advantages of colloidal perovskite nanocrystals for large-area efficient light-emitting diodes", SPIE Optics+ Photonics 2021, San Diego, August, 2022 (**Invited**)

391. D.-G. Seo, Y. Lee, Y. Liu, Z. Bao and **T.-W. Lee**, "Stretchable Nervetronics for Next-generation Neuroprosthetics", The 22nd International Meeting on Information Display, Busan, August 23-26, 2022 (**Oral**)

392. **T.-W. Lee**, "Future display technologies with perovskite emitters", International Conference on Flexible and Printed Electronics (ICFPE), Jeju, October 11-14, 2022 (기조강연)

393. **T.-W. Lee**, "Efficient, Bright, and stable perovskite light-emitting diodes", 물리학회 (KPS) 2022, Busan, Oct 18-21, 2022 (**Invited**)

394. H. Zhou, S. J. Han, A. K. Harit, D. H. Kim, D. Y. Kim, Y. S. Choi, H. Kwon, K.-N. Kim, G.-T. Go, H. J. Yun, B. H. Hong, M. C. Suh, S. Y. Ryu, H. Y. Woo and **T.-W Lee**, "Graphene Based Intrinsically Stretchable Two-Dimensional-Contact Electrodes for Highly-Efficient Organic Light-Emitting Diodes", International Conference on Flexible and Printed Electronics (ICFPE), Jeju, October 11-14, 2022 (**Oral**)

395. J. S. Kim, J.-M. Heo, G.-S. Park, S.-J. Woo, C. Cho, H. J. Yun, D.-H. Kim, J. Park, S.-C. Lee, S.-H. Park, E. Yoon, N. C. Greenham, **T.-W. Lee**, "In-Situ Core/shell Perovskites for Ultra-Bright, Efficient and Stable Light-Emitting Diodes", ENGE (The 7th International Conference on Electronic Materials and Nanotechnology for Green Environment), Jeju, Nov 6-9, 2022 **(Oral)**

396. **T.-W. Lee**, "Perovskite emitters for down-conversion, self-emissive, and metaverse display", ENGE (The 7th International Conference on Electronic Materials and Nanotechnology for Green Environment), Jeju, November 6-9, 2022 (기조강연)

397. D.-G, Seo, J. Kim, Z. Bao, and **T.-W. Lee**, "Systematic Study of Ion-gel Gated Organic Transistors for Nex-Generation Biosensors", ENGE (The 7th International Conference on Electronic Materials and Nanotechnology for Green Environment), Jeju, Nov 6-9, 2022 (Oral)

398. J. S. Kim, J.-M. Heo, G.-S. Park, S.-J. Woo, C. Cho, H. J. Yun, D. -H. Kim, J. Park, S.-C. Lee, S.-H. Park, E. Yoon, N. C. Greenham, **T.-W. Lee**, "In-Situ Core/Shell Perovskites for Ultra-Bright, Efficient and Stable Light-Emitting Diodes", 2022 MRS fall, Boston, Nov 28-Dec 2, 2022 (**Poster**)

399. **T.-W. Lee**, "Nanocrystal engineering for efficient and stable perovskite light-emitting diodes", International Conference on Electroluminescence and Optoelectronic Devices (ICEL), London, Dec 5-7, 2022 **(Invited)**

400. **T.-W. Lee**, "Flexible Organic Nervetronics and Nerveprosthetics", MEMRISYS 2022, Boston, Nov 30-Dec 2, 2022 (**Invited**)

401. K.-N. Kim, H. Zhou, D.-Y. Kim, Y. Wu, S. Zhang, Y. Lee, H.-L. Park , D.-G. Seo, G.-T. Go, M.-J. Sung, J. Park, Z. Bao* and **T.-W. Lee***, "Electrolyte-gated Organic Light-Emitting Synapses with Sub-bandgap Turn-on Voltage", 2nd Workshop on Neuromorphic Organic Devices, Chania, Oct 23-26, 2022 (**Oral**)

402. D.-G. Seo, **T.-W. Lee**, "Strategy for Enhancing Long-Term Potentiation of Ion-gel Gated Synaptic Transistors", 2nd Workshop on Neuromorphic Organic Devices, Chania, Oct 23-26, 2022 **(Oral)**

403. H. Zhou, S. J. Han, A. K. Harit, H. Y. Woo and **T.-W Lee***, "Graphene-based Intrinsically Stretchable Two-Dimensional-Contact Electrodes for Highly Efficient Organic Light-Emitting Diodes ", 2022 MRS Fall, Boston, Nov 28-Dec 2, 2022 **(Oral)**

404. H. Zhou S. j. Han, H. -D. Lee, D. Zhang, A. Mark, S. H. Jo, G. Yury, **T. -W. Lee***, "Environmentally-Stable High Work Function Titanium Carbide MXene for Large-Area Organic Light-Emitting Diodes", 2022 MRS Fall, Boston, Nov 28-Dec 2, 2022 **(Oral*)***

405. **T.-W. Lee***, "Stretchable and Flexible Artificial Nerves for Nerveprosthetics ", International Conference on Flexible Electronics (ICFE 2022), Online, Dec 10-11, 2022 **(Keynote)**

406. **T.-W. Lee***, "Two-Dimensional Graphene and MXene Electrodes for Flexible and Stretchable Organic Light-Emitting Diodes", The 64th Fullerenes-Nanotubes-Graphene General Symposium, Nagoya, March 1-3, 2023 **(Invited)**

407. **T.-W. Lee***, "Organic Nervetronics for Next-Generation Computing and Nervetronics", 2023 MRS Spring, SanFranscisco, April 10-14, 2023 **(Invited)**

408. **T.-W. Lee***, "Perovskite Nanocrystal Emitters for Efficient, Bright, and Stable Light-Emitting Diodes", 2023 MRS Spring, SanFranscisco, April 10-14, 2023 **(Invited)**

409. **T.-W. Lee***, "Efficient perovskite nanocrystal light-emitting diodes using a modified bar-coating method", 2023 KFPE spring meeting, Yeosu, April 26-28, 2023 **(Invited)**

410. **T.-W. Lee***, "Perovskite Nanocrystal for efficient, stable and large-area light-emitting diodes", SID's Display Week 2023, Los Angeles, May 22-26, 2023 **(Invited)**

411. **T.-W. Lee***, "Perovskite nanocrystal engineering for bright, efficient and stable light-emitting diodes", Compound Semiconductor Week (CSW) 2023, Jeju, May 29 - June 2, 2023 **(Keynote)**

412. **T.-W. Lee***, "Perovskite Nanocrystal Light-Emitting Diodes for High Brightness, Efficiency, and Stability", Global Conference on Innovation Material (GCIM) 2023, Jeju, June 6-9, 2023 **(Keynote)**

413. H. Lee, G.-T. Go, **T.-W. Lee***, "Molecular Weight Dependence Of Microstructure And Synaptic Plasticity In Ion-gel Gated Organic Synaptic Transistor", Global Conference on Innovation Material (GCIM) 2023, Jeju, June 6-9, 2023 **(Poster)**

414. S.E. Chang, J.S. Kim, **T.-W. Lee***, "Spectrally-Stable Mixed-Halide Perovskite for Blue Light-Emitting Diodes", Global Conference on Innovation Material (GCIM) 2023, Jeju, June 6-9, 2023 **(Poster)**

415. C.-Y Park, J.-M Heo, J.S.Kim, E.Yoon, **T.-W. Lee***, "Nanostructure Modification on Thermally Evaporated Perovskite Films Toward Large area Light-Emitting Diodes", Global Conference on Innovation Material (GCIM) 2023, Jeju, June 6-9, 2023 **(Poster)**

416. K.Y. Jang, S. Hwang, S.-J. Woo, **T.-W. Lee***, "Highly Efficient Deep-Blue Perovskite Quantum Dot LEDs", Global Conference on Innovation Material (GCIM) 2023, Jeju, June 6-9, 2023 **(Oral)**

417. **T.-W. Lee***, "Overcoming Efficiency and Stability Challenges in Perovskite Light-Emitting Diodes", nanomaterials for display and photonic applications ("NanoDisP"), Hong Kong, June 19-21, 2023 **(Keynote)**

418. **T.-W. Lee***, "Efficient light-emitting and light-harvesting devices utilizing perovskite nanocrystals", EcoMat Conference 2023, Hong Kong, June 20-24, 2023 **(Keynote)**

419. **T.-W. Lee***, "Artificial synapse and nerve for next-generation computing and neuroprosthetics", ICMAT 2023, Singapore, June 26-30, 2023 **(Invited)**

420. **T.-W. Lee***, "Perovskite Nanocrystal Emitters for bright, efficient, and stable light-emitting diodes", PhotonIcs & Electromagnetics Research Symposium (PIERS) 2023, Prague, July 3-6, 2023 **(Invited)**

421. **T.-W. Lee***, "Perovskite Nanocrystal Light-Emitting Diodes for Efficient, Stable, and Bright Displays", SPIE Optics+Photonics 2023, San Diego, August 20-24, 2023 **(Invited)**

422. S.-H. Jo, W. Yang, **T.-W. Lee***, Aromatic Amine Treatment on Perovskite Nanocrystals for Photovoltaic Application, 2023 A3 Symposium of Emerging Materials Innovation, Aug 30 - Sep 1, 2023, **(Poster)**

423. M.-J. Sung, D.-G. Seo, J. Kim, H. E. Baek, G.-T. Go, S.-J. Woo, K.-N. Kim, H. Yang, Y.-H. Kim, **T.-W. Lee***, Overcoming the Trade-off between Electrochemical Doping Efficiency and Retention Time in Electrolyte-Gated Organic Synaptic Transistors, 2023 A3 Symposium of Emerging Materials Innovation, Aug 30 - Sep 1, 2023, **(Poster)**

424. **T.-W. Lee***, Advancements in Perovskite Nanocrystal LEDs for Bright, Efficient, and Stable Displays, ICFM2023, Oct 13-17, 2023, **(Keynote)**

425. **T.-W. Lee***, Two-Dimensional Graphene and MXene for Flexible and Stretchable Optoelectronic Applications, 2023 MRS Fall, Nov 26-Dec 1, 2023, **(Invited)**

426. **T.-W. Lee***, Perovskite Light-Emitting Materials and Devices, 2023 ICAMD, Dec 4-8, 2023, **(Tutorial)**

427. **T.-W. Lee***, Perovskite Nanocrystals for High-Efficiency, Stable and Large-area Light-Emitting Diodes, Optics & Photonics Taiwan International Conference 2023 (OPTIC 2023), Dec. 1-3, 2023, **(Invited)**

428. **T.-W. Lee***, MXene and Graphene 2D Electrodes for Flexible and Stretchable Optoelectronics, EU-Korea Graphene Workshop, May 22-23, 2023, **(Invited)**

429. **T.-W. Lee***, Metal Halide Perovskite Nanocrystals for Bright, Efficient, and Stable Display Application, Sungkyun International Solar Forum 2023 (SISF 2023), Nov 1-3, 2023, **(Invited)**

430. **T.-W. Lee***, Efficient and Stable Perovskite Light-Emitting Diodes, International Conference on Thin Films 2023 (ICTF 2023), Sept. 26-29, 2023, **(Invited)**

431. **T.-W. Lee***, Perovskite nanocrystal emitters for bright, efficient and stable light-emitting diodes, ICMAT 2023, June 26-30, 2023, **(Invited)**

432. **T.-W. Lee***, Perovskite nanocrystals enabling bright, efficient and stable light-emitting diodes, The 2nd Energy LEDARE Workshop, Sept. 11-13, 2023, **(Invited)**

433. **T.-W. Lee***, Next-Generation Neuromorphic Electronics: High-Resolution Printing of Organic Semiconductor Nanowires, The 18th IEEE International Conference on Nano/Micro Engineered and Molecular Systems (IEEE NEMS 2023), May 14-17, 2023, **(Keynote)**

434. **T.-W. Lee***, Organic Neuromorphic Electronics for Computing, Robotics, Bioelectronics, and Displays, The 23rd International Meeting on Information Display (IMID 2023), Aug 22-25, 2023, **(Invited)**

435. K.Y. Jang, **T.-W. Lee***, Implementing QD-in-Host Structure for High Efficiency in Deep-Blue Perovskite LEDs, 2023 MRS Fall, Nov 26 - Dec 1, 2023, **(Oral)**

436. M.-J. Sung, D.-G. Seo, J. Kim, H. E. Baek, G.-T. Go, S.-J. Woo, K.-N. Kim, H. Yang, Y.-H. Kim, **T.-W. Lee***, Overcoming the Trade-off between Efficient Electrochemical Doping and High State Retention in Electrolyte-Gated Organic Synaptic Transistors, 2023 MRS Fall, Nov 26 - Dec 1, 2023, **(Oral)**

437. K.-N. Kim, H. Zhou, D.-Y. Kim, H.-L. Park, Y. Lee, K.-K. Kim, M.-J. Sung, Y. Wu, S. Zhang, D.-G. Seo, G.-T. Go, J. Park, Z. Bao, **T.-W. Lee***, Low voltage organic light-emitting synaptic transistors for neuromorphic in-display processing, 2023 MRS Fall, Nov 26 - Dec 1, 2023, **(Poster)**

438. T. Long, H. Zhou, J. Ko, D. Kang, E. Yoon, G.T. Go, H. Choi, M.H. Park, W.K. Bae, J. Bang, **T.-W. Lee***, Retina-Inspired Ferroelectric-Based Photonic Synapses, 2023 MRS Fall, Nov 26 - Dec 1, 2023, **(Poster)**

439. H. Lee, G.-T. Go, M.-J. Sung, J. Lee, H. Park, T.-L. Choi, **T.-W. Lee***, Unraveling the Relationship Between Molecular Weight and Long-Term Plasticity in IGOSTs, 2023 MRS Fall, Dec 5 - Dec 7, 2023, **(Poster)**

440. S.E. Chang, J.S. Kim, **T.-W. Lee***, Color-Stable Mixed-Halide Blue Perovskite Light-Emitting Diodes, 2023 MRS Fall, Dec 5 - Dec 7, 2023, **(Poster)**

441. C.-Y Park, J.-M Heo, J.S.Kim, E.Yoon, **T.-W. Lee***, Nanostructure Modification on Thermally Evaporated Perovskite Films Toward Large-Area Light-Emitting Diodes, 2023 MRS Fall, Dec 5 - Dec 7, 2023, **(Poster)**

Domestic Conference Presentation

1. **T.-W. Lee***, H.-M. Lee, L.-M. Do, D.-H. Hwang, H.-Y. Chu, T. Zyung, O. O. Park, “Effect of Ionomers in Polymeric Lighting Emitting Diodes”, *The Meeting of The Korea Polymer Society*, 2PS-130, Vol. 23, No. 2, p 258, Kumi, KOREA, October, 1998

2. **T.-W. Lee***, O. O. Park, L.-M. Do, T. Zyung, “Improvement of EL Efficiency by Overneutralization of Ionomers in Polymeric Light-Emitting Diodes”, *The Meeting of The Korea Polymer Society*, 1PS-127, Vol. 24, No. 1, p 141, Seoul, KOREA, April, 1999

3. O. O. Park, **T.-W. Lee***, Lee-Mi Do, T. Zyung, “Heat Treatment Methods for High Efficient Polymer Light-Emitting diodes”, *Proceeding of ’99 KICHE Spring Meeting*, Suwon, KOREA, E-63, Vol. 5, April, 1999

4. **T.-W. Lee***, H.-N. Cho, D. Y. Kim, J.-M. Hong, C. Y. Kim, O. O. Park, Y. C. Kim, “Lasing from a Fluorene-Based Statistical Copolymer and Its Blend”, *The Meeting of The Korea Polymer Society*, Vol. 25, No. 1, 1PS-141, p139, Suwon, KOREA, April, 2000

5. **T.-W. Lee***, O. O. Park, J.-J. Kim, J.-M. Hong, Y. C. Kim, “Conjugated Ppolymer/Llayered Silicate Nanocomposite Light-Emitting Devices”, *The Meeting of The Korea Polymer Society*, Vol. 25, No. 2, 1PS-184, p170, Taejon, KOREA, October, 2000

6. **T.-W. Lee***, O. O. Park, H. N. Cho, J.-M. Hong, C. Y. Kim, Y. C. Kim, “White Electroluminescence from a Ternary Polymer Blend”, *The Meeting of The Korea Polymer Society*, Vol. 25, No. 2, 1PS-183, p169, Taejon, KOREA, October, 2000

7. **T.-W. Lee***, O. O. Park, H. N. Cho, Y. C. Kim, “Lasing in Liquid Crystalline Polymer Blends”, *The Meeting of The Korea Polymer Society*, Vol. 26, No. 2, 1PS-166, p164, Sooncheon, KOREA, October, 2001

8. H.-C. Lee, **T.-W. Lee***, O. O. Park. "Well-Ordered Polymer-Clay Layer-By-Layer Film Formation through Spin-Assembly", *The Meeting of The Korea Polymer Society*, Vol. 26, No. 2, 1PS-230, p196, Sooncheon, KOREA, October, 2001

9. Y. T. Lim, **T.-W. Lee***, H.-C. Lee, H.-T. Jung, O. O. Park. "Nanaoparticle Approach to Enhance the Lifetime of Conjugated Polymer Devices", *The Meeting of The Korea Polymer Society*, Vol. 26, No. 2, 2P3-2, p62, Sooncheon, KOREA, October, 2001

10. **T.-W. Lee***, Y. Chung, O. Kwon, J.-J. Park, "Self-organized gradient hole injection layer for polymer light-emitting diodes”, *KIChE 2006 Fall*, Korea University, Seoul, Korea, October 27-28, 2006 **(Invited)**

11. K.-G. Lim, D.-H. Kim, M.-R. Choi, N.-S. Kang, B.D. Chin, **T.-W. Lee***, "Controlled interface for efficient hole extraction in organic bulk heterojunction solar cells", *The Polymer Society of Korea 2009 fall*, GIST, Gwang-ju, Korea, October 7-9, 2009 **(Poster)**

12. M.-R. Choi, T.-H. Han, S.-H. Woo, K.-G. Lim, W.-M. Yun, O.-K. Kwon, C.-E. Park, H.-K. Shin, D.-H. Huh, K.-H. Shin, J.-S. Jang, **T.-W. Lee***, "Polymeric hole- injection layers for high-efficiency and long-lifetime organic light-emitting diodes", *The Polymer Society of Korea 2009 fall*, GIST, Gwang-ju, Korea, October 7-9, 2009 **(Poster)**

13. S.-Y. Min, **T.-W. Lee***, "Highly aligned patterns of light-emitting poly(9-vinylcarbazole) nanofibers by robotic near-field electrospinning", *The Polymer Society of Korea 2010 Spring*, DCC, Daejeon, Korea, April 8-9, 2010 **(Poster)**

14. T.-S Kim, S.-H. Kim, C.-E. Park, **T.-W. Lee***, "The charge transport and morphology of organic semiconductor films confined in nano-patterned region", The Polymer Society of Korea-Spring meeting, DCC, Korea, April 8-9, 2010 **(Poster)**

15. S.-H. Woo, K.-G. Lim, **T.-W. Lee***, "Self-organized polymeric anode with tunable work function for flexible organic device applications", The 105th National Meeting of the Korean Chemical Society, Songdoconvensia, Incheon, Korea, April 29-30, 2010 **(Invited)**

16. J.-H Hwang, T.-H Han, S.-H Woo, D.-H Wang, O. O. Park, and **T.-W. Lee***, "The electron injection of BCP : CsN3 layer on changing doping concentration in organic light emitting diodes ", 2010 Joint Symposium on the MSE, Daejeon, Korea, June 27-30, 2010 **(Poster)**

17. S.-Y. Min, J. Bang, J. Park, C.-L. Lee, S. Lee, J.-J. Park, U. Jeong, S. Kim, **T.-W. Lee***, "White Light-Emitting Diodes using Electrospun Emitting Fiber Mats of Polymer/Quantum Dot Composites as Down Conversion Phosphor Layers", *The Polymer Society of Korea 2010 Fall*, EXCO, Daegu, Korea, October 7-8, 2010 **(Poster)**

18. J.-H Hwang, M.-R Choi, T.-H Han, K.-G Lim, and **T.-W. Lee***, "Synergetic effect of a high work function solution-processed hole-injection layer and a n-doped electron injection layer for highly efficient stacked organic light-emitting diodes", *The Polymer Society of Korea 2010 Fall*, EXCO, Daegu, Korea, October 7-8, 2010 **(Poster)**

19. K.-G. Lim, M.-R. Choi, **T.-W. Lee***, "Fundamental studies of interlayer in tandem organin solar cells based on solution process", *The Polymer Society of Korea 2010 fall*, EXCO, Daegu, Korea, October 7-8, 2010 **(Poster)**

20. T.-S. Kim, S.-H Woo, S.-H. Kim, C.-E. Park, **T.-W. Lee***, "Self-organized polymeric electrodes to improve the charge injection contact in organic thin film transistors", The Polymer Society of Korea-Fall meeting, EXCO, Daegu, Korea, October 7-8, 2010 **(Poster)**

21. S.-J. Byun, **T.-W. Lee*,** "Fabrication of graphene-like carbon thin film from pyrolysis of polymer thin films", The Polymer Society of Korea, EXCO, Daegu, Korea, October 7-8, 2010 **(Poster).**

22. **T.-W. Lee***, "Transparent Anodes for Flexible Organic Light-Emitting Diodes Displays", Fall Symposium 2010 of KIChE: Green Display Symposium, Daejeon Convention Center, Daejeon, Korea, October 21-22, 2010 (**Invited**)

23. K.-G. Lim, M.-R. Choi, **T.-W. Lee***, "Role of Electron Extraction Contacts in Organic Bulk Heterojunction Solar Cells: Device Degradation Mechanism", The Korean Electrochemcial Society Meeting, KIST, Seoul, Korea, November 4-5, 2010 (**Invited**)

24. S.-Y. Min, T.-S. Kim, **T.-W. Lee***, "High Speed Electrohydrodynamic Nozzle Printing for Large Area Electroncs", 2010 Printed Electronics Korea, KIMMS, Daejeon, Korea, November 11, 2010 **(Invited)**

25. S.-Y. Min, T. S. Kim, **T.-W. Lee*, "**Highly-aligned printed organic nanowires for high mobility transistor arrays", The Korean Conference on Semiconductors, Haevichi Hotel, Jeju, Korea, February 16-18, 2011 **(Poster)**

26. T.-H. Han, **T.-W. Lee***, "Degradation analysis of highly efficient and stable small-molecule organic light-emitting diodes by using self-organized polymeric hole injection layers", *The Polymer Society of Korea 2011 Spring*, EXCO, Daegu, Korea, April 7-8, 2011 **(Oral)**

27. Mi-Ri Choi, Kyung-Geun Lim, **T.-W. Lee***, "Solution-processable interfacial nanolayer for efficient and stable polymer solar cells", *The Polymer Society of Korea 2011 Spring*, EXCO, Daegu, Korea, April 7-8, 2011 **(Oral)**

28. S.-Y. Min, T. S. Kim, B. J. Kim, J. H. Cho, **T.-W. Lee*,** "Low-voltage Operating Organic Nanowire FET using Polymer Electrolyte Gate Dielectric", The Polymer Society of Korea, Kimdaejung Convention Center, Gwangju, Korea, October 6-7, 2011 **(Poster)**

29. S.-H. Jeong, H.-B. Kim, M.-R. Choi, K.-G. Lim. **T.-W. Lee***, " Self-organized conducting polymer anode with tunable work function for flexible polymer light-emitting diodes and organic photovoltaics.", *The Polymer Society of Korea 2011 fall*, GIST, Gwang-ju, Korea, October 6-7, 2011 **(Poster)**

30. H.-B. Kim, K.-G. Lim, M.-R. Choi, **T.-W. Lee***, " Effect of thermal annealing on the degradation of organic photovoltaic cells", *The Polymer Society of Korea 2011 fall*, Kimdaejung Convention Center, Gwang-ju, Korea, October 6-7, 2011 **(Poster)**

31. H.-C. Cho, S.-Y. Min, T.-S. Kim, **T.-W. Lee***, "High-Speed Nozzle Printing of Light-Emitting Polymers", The Polymer Society of Korea, Kimdaejung Convention Center, Gwangju, Korea, October 6-7, 2011 **(Poster)**

32. T. S. Kim, S.-Y. Min, **T.-W. Lee***, "Polymer nanofiber transistors using polymeric electrodes with high work function" The Polymer Society of Korea, Kimdaejung Convention Center, Gwangju, Korea, October 6-7, 2011 **(Oral)**

33. **T.-W. Lee***, S.-Y. Min, T. S. Kim, J. Ho. Cho, "Large Area Organic Nanowire Printing and Transistors" The Polymer Society of Korea, Kimdaejung Convention Center, Gwangju, Korea, October 6-7, 2011 **(Oral)**

34. T.-H. Han, Y. Lee, M.-R. Choi, S.-H. Woo, S.-H. Bae, B. H. Hong, J.-H. Ahn, **T.-W. Lee***, "Highly Efficient Flexible Organic Light-emitting Devices using Modified Graphene Anodes", The 19th Korean Conference on Semiconductors, Korea University, Seoul, Korea, February 15-17, 2012 (**Oral**)

35. S.-Y. Min, T. S. Kim, J. H. Cho, **T.-W. Lee***, "Organic Nanowire Printing, Lithography, and Electronics", The 19th Korean Conference on Semiconductors, Korea University, Seoul, Korea, February 15-17, 2012 (**Invited**)

36. Y.-H. Kim, , K.-G. Lim, **T.-W. Lee*, "**Flexible, inverted polymer light-emitting diodes on flexible substrates", The Polymer Society of Korea 2012 Spring, DCC, Daejeon, Korea, April 12-13, 2012 **(Poster)**

37. S.-H. Jeong, H.-B. Kim, K.-G. Lim, S.-H. Woo, W.-S. Shin, **T.-W. Lee*, "**Lifetime enhancement of organic photovoltaic cells by using self-organized polymeric anodes", The Polymer Society of Korea 2012 Spring, DCC, Daejeon, Korea, April 12-13, 2012 **(Poster)**

38. M. Kim, Y. H. Kim, H. G. Moon, S.-Y. Min, H. W Jang and **T.-W. Lee*[1*], "**Large-area gas sensor array based on highly aligned metal oxide nanofibers", The Korean Ceramic Society Spring Meeting, Changwon, Korea, April 18, 2013 **(Invited)**

39. H.-K. Seo, T.-S. Kim, S.-H. Bae, W. Xu, S.-Y. Lee, H.-C. Choi, J.-H. Ahn, **T.-W. Lee***, "Practical Electronics Applications of Graphene Films Converted from Coal Tar Pitch", The 1st Korean Graphene Symposium, Buyeo, Lotte Resort, Korea, April 3-4, 2014 **(Poster)**

40. S.-J. Kwon, T.-H. Han, H.-K. Seo, T.-W, Lee, "Ultraviolet-ozone Treated Graphene as a Hole Injecting Interfacial Layer in Organic Optoelectronics", The 1st Korean Graphene Symposium, Buyeo, Lotte Resort, Korea, April 3-4, 2014 **(Poster)**

41. K.-G. Lim, Y.-H. Kim, **T.-W. Lee***, "Organic/Inorganic Perovskite Optoelectronics using Polymeric Hole Injection/Extraction Buffer Layers", The Polymer Society of Korea Spring Meeting, Daejeon Convention Center, Daejeon, Korea, April 9-10, 2015 **(Invited)**

42. H. Cho, S.-H. Jeong, S.-Y. Min, T.-H. Han, M.-H. Park, Y.-H. Kim, **T.-W. Lee*, "**Controllable Large-Area Cathode Patterning for Organic Light-Emitting Diodes", The

Polymer Society of Korea 2014 Spring, DCC, Daejeon, Korea, April 9-11, 2014 **(Oral)**

43. Y.-H. Kim, **T.-W. Lee*, "**Analysis of Air-stable Polymer Electron Injection Interlayer for Efficient Inverted Polymer Light-Emitting Diodes", The Polymer Society of Korea 2014 Spring, DCC, Daejeon, Korea, April 9-11, 2014 **(Oral)**

44. T.-H. Han, S.-J. Kwon, W. Xu and **T.-W. Lee*, "**Air-Stable Solution-Processed Chemical Doping for Graphene Electronics", The Polymer Society of Korea 2014 Fall Meeting, International Conventional Center, Jeju, Korea, October 6-8, 2014 **(Invited)**

45. H. Kim, S.-H. Bae, T.-H. Han, K.-G. Lim, J.-H. Ahn, **T.-W. Lee*, "**Development of organic solar cells with graphene anode", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

46. H. Kim, J.-W. Byun, S.-J. Kwon, S.-H. Bae, Y. Lee, S.-Y. Min, H.-K. Seo, J.-H. Ahn, **T.-W. Lee*, "**Efficient inverted organic solar cells based on graphene cathodes", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

47. T.-S. Kim, S. H. Kim, M. Jang, H. Yang, **T.-W. Lee*, "**An improvement in the charge injection of P3HT nanofiber transistors using Self-organized polymeric electrodes", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

48. T.-S. Kim, S.-Y. Min, **T.-W. Lee*, "**An improvement in the charge injection of P3HT nanofiber transistors using Self-organized polymeric electrodes", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

49. Y. Lee, T.-S. Kim, S.-Y. Min, W. Xu, S.-H. Jeong, H.-K. Seo, **T.-W. Lee*, "**Individually position-addressable Cu Nanofiber Electrode Array Printing", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

50. Y. Lee, S.-Y. Min, T.-S. Kim, S.-H. Jeong, H. Kim, J. Y. Won, J. K. Jeong, **T.-W. Lee*, "**Designable Ag nanofiber electrode array printing for various electronic devices", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

51. T.-S. Kim, Y. Lee, S.-Y. Min, **T.-W. Lee*, "**Addressable all metal oxide nanowire electronics", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

52. K.-G. Lim, H.-B. Kim, J. Jeong, J. Y. Kim, **T.-W. Lee*, "**Energy level tailoring for high power conversion efficiency of perovskite solar cells using self-organized polymeric hole extraction layers with high work function", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

53. K.-G. Lim, S. M. Park, H. Y. Woo, **T.-W. Lee*, "**Mechanism of Conjugated Polyelectrolytes for High-Performance Organic Photovoltaics", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

54. K.-G. Lim, J.-M. Park, H. Mangold, F. Laquai, T.-L Choi, **T.-W. Lee*, "**Study for Bimolecular Crystals of Amorphous Polymer:PCBM Intercalated Structure for Improving PPV-based Organic Photovoltaics", The Korean Society of Industrial and Engineering Chemistry, BEXCO, Busan, Korea, April 29-May 1, 2015 **(Poster)**

55. **T.-W. Lee***, "Organometal Halide Perovskite Optoelectronics using Controlled Polymeric Hole Transport Layers", The Korean Society of Industrial and Engineering Chemistry Spring Meeting, BEXCO, Busan, Korea, April 29-30, 2015 (**Invited**)

56. **T.-W. Lee***, "Next Light Emitters: Organic-Inorganic Perovskite Light-Emitting Diodes", The Korean Vacuum Society Meeting 2015, Changwon Convention Center, Changwon, Korea, August 24, 2015 (**Invited**)

57. H. Kim, S.-H. Bae, T.-H. Han, K.-G. Lim, J.-H. Ahn, **T.-W. Lee***, "Efficient inverted organic solar cells using graphene as a cathode", The Korea Physical Society, Hwabaek International Convention Center (HICO), Gyeongju, October 21-23, 2015 **(Oral)**

58. S.-J. Kwon, T.-H. Han, H.-K. Seo, **T.-W. Lee*, "**Stable p-Type graphene doping using polymer for organic light-emitting diodes", The Korean Society of Industrial and Engineering Chemistry, ICC JEJU, International Conventional Center, Jeju, Korea, November 4-6, 2015 **(Poster)**

59. S.-J. Kwon, T.-H. Han, H.-K. Seo, **T.-W. Lee*, "**Surface potential modification of multi-layered graphene anode through ultraviolet ozone treatment for enhancing the hole injection properties", The Korean Society of Industrial and Engineering Chemistry, ICC JEJU, International Conventional Center, Jeju, Korea, November 4-6, 2015 **(Poster)**

60. S.-J. Kwon, T.-H. Han, H.-K. Seo, **T.-W. Lee*, "**Efficient inverted polymer light-emitting diodes using n-type doped graphene cathodes", The Korean Society of Industrial and Engineering Chemistry, ICC JEJU, International Conventional Center, Jeju, Korea, November 4-6, 2015 **(Poster)**

61. H.-K. Seo, M.-H. Park, Y.-H. Kim, S.-J. Kwon, S.-H. Jeong and **T.-W. Lee***, "Transparent Polymer/Graphene Films for Thin Film Encapsulation of Flexible Organic Electronic Device", The 3rd Korean Graphene Symposium, LOTTE Resort Buyeo, Korea, April 14-15, 2016 **(Oral)**

62. H.-K. Seo, Y. Lee, H. Choi, R. Raj and **T.-W. Lee***, "Direct Growth of Graphene-Insulator Bi-layer Structure on Substrates", The 3rd Korean Graphene Symposium, LOTTE Resort Buyeo, Korea, April 14-15, 2016 **(Poster)**

63. **T.-W. Lee**, "High efficiency organometal halide perovskite solar cells and light-emitting diodes", The Koren Organic Solar Cell Conference, Yonsei University, Seoul, August 24, 2016 (**Invited**)

64. **T.-W. Lee**, "Solution-Processed p-Type Chemical Doping of Graphene", The Korean Physcial Society (KPS) Fall Meeting, Kimdaejung Convention Center, Gwangju, Korea, October 19-21, 2016 (**Invited**)

65. **T.-W. Lee**, "Macromolecular p-type chemical doping for graphene electrode", 2016 The Korean Society of Industrial and Engineering Chemistry (KSIEC) Fall Meeting, ICC Jeju, Jeju, Korea, October 26-28, 2016 (**Invited**)

66. **T.-W. Lee**, "Next light emitters: Metal halide perovskite light-emitting diodes", 2016 The Korean Society of Industrial and Engineering Chemistry (KSIEC) Fall Meeting, ICC Jeju, Jeju, Korea, October 26-28, 2016 (**Invited**)

67. **T.-W. Lee**, "Stable p-Type Chemical Doping of Graphene Electrode for Flexible Organic Light-Emitting Diodes", 2017 Winter Workshop on 2D Materials, Seoul National University, Seoul, Korea, February 8-9, 2017 (**Invited**)

68. H. Cho, S.-H. Jeong, M.-H. Park, **T.-W. Lee***, "Next LEDs: Metal Halide Perovskite Light-Emitting Diodes", The 24th Korean Conference on Semiconductors (KCS 2016), Daemyung Resort Vivaldi Park, Pyeongchang, Kangwondo, Korea, February 13-15, 2017 (**Invited**)

69. H. Cho, S.-H. Jeong, M.-H. Park, **T.-W. Lee***, "Next LEDs: Metal Halide Perovskite Light-Emitting Diodes", The 24th Korean Conference on Semiconductors (KCS 2016), Daemyung Resort Vivaldi Park, Pyeongchang, Kangwondo, Korea, February 13-15, 2017 (**Invited**)

70. **T.-W. Lee***, "Metal Halide Perovskite Light-Emitting Diodes", 8th International Conference on Flexible and Printed Electronics 2017, The SHILLA HOTEL, Jeju Island, Korea, September 4-7, 2017 (**Invited**)

71. **T.-W. Lee***, "Metal Halide Perovskite Light-Emitting Diodes", The Polymer Society of Korea, Jeju, Korea, October 12-13 (**Oral**)

72. **T.-W. Lee,** "Flexible and Stretchable Organic Nanowire Synapses**",** 2017 Fall Meeting of The Polymer Society of Korea, Jeju, Korea, October 11-13, 2017 **(Invited)**

73. H. Cho, Y.-H. Kim, S.-H. Jeong, M.-H. Park, H. Kim, **T.-W. Lee,** "Next Generation Light-Emitting Materials: Metal Halide Perovskites**",** 2017 Fall Meeting of The Korean Ceramic Society, International Convention Center Jeju, Jeju, Korea, October 11-13, 2017 **(Invited)**

74. H. Cho, Y.-H. Kim, S.-H. Jeong, M.-H. Park, H. Kim, **T.-W. Lee,** "Next Generation Light-Emitting Materials: Metal Halide Perovskites", 2017 Fall Meeting of The Korean Physical

Society, Gyeongju Hwabaek International Convention Center, Gyeongju, Korea, October 25-27, 2017 **(Invited)**

75. **T.-W. Lee,** "Metal Halide Perovskite Emitters for LEDs", 2017 Conference on Electronic Materials and Nanotechnology for Green Environment (ENGE), EXCO, Daegu, Korea, October 27, 2017 **(Invited)**

76. **T.-W. Lee,** "Metal Halide Perovskite Emitters for LEDs", 2017 Perovskite Photonics Conference (PPC2017), Jeju Ramada Hotel, Jeju, Korea, November 20-21, 2017 **(Invited)**

77. S. H. Jo, Y.-H. Kim, **T.-W. Lee**, "Ligand-engineered CH3NH3PbBr3/CsPbI3 Bilayer based Solar Cell with Improved Power Conversion Efficiency", The 25th Korean Conference on Semiconductors (KCS), Highone Resort Convention Hotel, Kangwondo, Korea, February 5-7, 2018 **(Poster)**

78. H.-D. Lee, H. Kim, W. Cha, C.-L. Lee, D. Kim, H. Yang, **T.-W. Lee**, "Structural Modulation for Efficient Quasi-2D Perovskite Light-Emitting Diodes", The 25th Korean Conference on Semiconductors (KCS), Highone Resort Convention Hotel, Kangwondo, Korea, February 5-7, 2018 **(Poster)**

79. J. S. Kim, H. Cho, **T.-W. Lee**, "Defect Passivation of Perovskite Light-Emitting Diodes with Improved Device Efficiency and Operating Stability", The 25th Korean Conference on Semiconductors (KCS), Highone Resort Convention Hotel, Kangwondo, Korea, February 5-7, 2018 **(Poster)**

80. W. Xu, S.-Y. Min, H. Cho, Y.-H. Kim, Y. Lee, H. Hwang, **T.-W. Lee**, "Artificial synapses using organic and organic-inorganic hybrid perovskite materials", The Korean Physcial Society (KPS) Fall Meeting, Kimdaejung Convention Center, Gwangju, Korea, October 19-21, 2017 **(Oral)**

81. **T.-W. Lee**, Himchan Cho, Joo Sung Kim, Young-Hoon Kim, Su-Hun Jeong, Min-Ho Park, "High-efficiency perovskite light-emitting diodes and investigation on their photophysical properties", The Korean Physcial Society (KPS) Spring Meeting, Daejeon Convention Center (DCC), DaeJeon, Korea, April 25-27, 2018 **(Oral)**

82. **T.-W. Lee**, Young-Hoon Kim, "High efficiency metal halide perovskite light-emitting diodes", 2018 The Korean Society of Industrial and Engineering Chemistry (KSIEC) Spring Meeting, Dae-gu EXCO, Dae-gu, Korea, March 2-4, 2018 **(Oral)**

83. **T.-W. Lee**, "Perovskite Light Emitting Nanoparticles and Diodes", 2018 QD & PV Research Seminar 1st Half Workshop, Hongik University, Seoul, Korea, February 9, 2018 **(Oral)**

84. **T.-W. Lee**, "Next-Generation Light Emitters: Halide Perovskite Light-Emitting Diodes", The Korean Chemical Society (KCS), Daegu EXCO, Daegu, Korea, October 17-19, 2018 **(Oral)**

85. **T.-W. Lee**, “Bio-Inspired Artificial Mechanosensory Nerves Based on Flexible Organic Electronics”, The Korean Physcial Society (KPS) Fall Meeting, Changwon Convention Center (CECO), Changwon, Korea, October 24-26, 2018 **(Oral)**

86. **T.-W. Lee**, “Vivid Stretchable Light Emitting Device Using Down-Conversion Perovskite Nanocomposite Color Conversion Layer”, 2018 The Korean Society of Industrial and Engineering Chemistry (KSIEC) Fall Meeting, Jeju Convention Center, Jeju, Korea, October 31-November 2, 2018 **(Oral)**

87. **T.-W. Lee**, “A bioinspired flexible organic artificial mechanosensory nerve system” Nano Convergence Conference 2019, Elysian Gangchon Resort, Chun Cheon, Korea, January 17-18, 2019 (기조강연)

88. J. S. Kim, **T.-W. Lee**, “Modified Sequential Deposition Method Providing Gradient Concentration for Efficient Perovskite Light Emitters”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Poster)**

89. H.-D. Lee, **T.-W. Lee**, “Efficient Quasi-2D Perovskite Light-Emitting Diodes with Controlled Nanostructures”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Poster)**

90. J. Park, **T.-W. Lee**, “Aluminum Oxide Shell Generated FAPbBr3 Perovskite Nanoparticles with Enhanced Moisture Stability”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Poster)**

91. S. Kim, **T.-W. Lee**, “Efficient Light-Emitting Diodes based on Perovskite Nanoparticles Incorporating Large Organic Cation”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Poster)**

92. H. Zhou, **T.-W. Lee**, “Stretchable Qauntumdot Nanocomposite Color Conversion Layer with Excellent Color Purity”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Poster)**

93. S. H. Jo, **T.-W. Lee**, “Ligand Engineering of Metal Halide Perovskite Nanoparticles for Optoelectronic Devices”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Poster)**

94. M.-H. Park, **T.-W. Lee**, “Polycrystalline Organic-Shielded Nanograins for Efficient Perovskite Light-Emitting Diodes”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Oral)**

95. J.-M. Heo, **T.-W. Lee**, “Bright Inorganic Lead-Free Perovskite Light-Emitting Diodes Using SnF2-Small Molecule Complex”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Poster)**

96. Y. Lee, **T.-W. Lee**, “Stretchable Organic Artificial Sensorimotor Synapse for Bio-Inspired Electronicss”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 (**Oral**)

97. D.-G. Seo, **T.-W. Lee**, “Influence of Polymer Structure in Synaptic Characteristic of Organic Synaptic Transistor”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Oral)**

98. N. Kim, **T.-W. Lee**, “Artificial Synapses based on Diketopyrrolopyrrole Polymers with Chemical Structure Engineering”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Poster)**

99. G.-T. Go, **T.-W. Lee**, “Polymer Structure-Dependent-Synaptic Plasticity of Organic Artificial Synapse”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 **(Oral)**

100. H.-L. Park, **T.-W. Lee**, “Modulation of Synaptic Plasticity of Carbon Nitride-Based Phototransistors under Light Stimulation”, The 26th Korean Conference on Semiconductors (KCS), Welli Hilli Park, Kangwondo, Korea, February 13-15, 2019 (**Oral**)

101. **T.-W. Lee**, “Graphene anode for organic and perovskite light-emitting diodes”, Graphene Korea 2019 International Conference, Songdo, Incheon, Korea, March 27-29, 2019 **(Invited)**

102. **T.-W. Lee**, “Organic Artificial Nerves”, 2019 년도 한국고분자학회 춘계학술대회, Busan Exhibition & Convention Center, Busan, Korea, April 10-12, 2019 (**Invited**)

103. **T.-W. Lee**, “High Efficiency Halide Perovskite Light-Emitting Diodes”, Ho-Am Forum on Engineering 2019, Samsung Financial Campus, Seoul, Korea, May 29, 2019 (**Invited**)

104. **T.-W. Lee**, " 유기 고분자 인공 신경”, 한국화학공학회 2019 년도 가을 총회 및 학술대회, Daejeon Convention Center, Daejeon, Korea, October 23-25, 2019 (**Invited**)

105. **T.-W. Lee**, “고분자 나노 섬유 기반 생체 모방형 유기 인공 신경”, 2019 한국섬유공학회 한국염색가공학회 공동학술대회, BEXCO 제 1 전시장, Busan, Korea, October 31-November 1, 2019 (**Invited**)

106. **T.-W. Lee**, "Flexible and Stretchable Bio-Inspired Organic Artificial Sensory Nervous Systems", 2020 한국유연인쇄전자학회 학술대회 (KFPE 2020), VIrtual, December 02-03, 2020 (**Invited**)

107. **T.-W. Lee**, "Organic-based artificial sensory nervous systems", 2020 년도 대한금속재료학회 춘계학술대회, VIrtual, October 28-30, 2020 (**Invited**)

108. **T.-W. Lee***, "Overcoming lifetime limitation on metal halide perovskite emitters and their display applications", 2020 한국 물리학회 춘계학회 (KPS Spring Meeting 2020), Virtual, July 13-15, 2020 (**Invited**)

109. **T.-W. Lee***, "Reducing Excessive Ligand for Efficient Perovskite Nanoparticle Light-Emitting Diodes ", 제 27 회 한국반도체 학술대회 (KCS 2020), Jeongseon, February 12-14, 2020 (**Oral**)

110. **T.-W. Lee***, "High-Efficiency Perovskite Light-Emitting Diodes Using Polymeric Interlayer", 제 27 회 한국반도체 학술대회 (KCS 2020), Jeongseon, February 12-14, 2020 (**Oral**)

111. **T.-W. Lee***, "Inkjet Printed Metal-Halide Perovskite Microarray For High Definition Light-Emitting Diodes", 제 27 회 한국반도체 학술대회 (KCS 2020), Jeongseon, February 12-14, 2020 (**Oral**)

112. **T.-W. Lee***, "High-performance and stretchable electrode using PEDOT:PSS-Ag nanowires hybrid structure for textile electronics", 제 27 회 한국반도체 학술대회 (KCS 2020), Jeongseon, February 12-14, 2020 (**Oral**)

113. K. Y. Jang, **T.-W. Lee***, "Synthesis of Efficient Blue emitting CsPb(Br/Cl)3 Nanoparticles via Divalent Metal Ion Doping", 제 27 회 한국반도체 학술대회 (KCS 2020), Jeongseon, February 12-14, 2020 (**Poster**)

114. H.-L. Park, **T.-W. Lee**, "In-Situ Modulation of Exposure to UV Light with UV-Selective Photonic Synapse", 제 27 회 한국반도체 학술대회 (KCS 2020), Jeongseon, February 12-14, 2020 (**Oral**)

115. S. H. Jo, and **T.-W. Lee**, "Ligand Engineering of Metal Halide Perovskite Nanoparticles for Optoelectronic Devices", 제 27 회 한국반도체 학술대회 (KCS 2020), Jeongseon, February 12-14, 2020 (**Oral**)

116. K.-N. Kim, H.-L. Park, J. Park, **T.-W. Lee**, "Light-emitting Synaptic Transistor for Visualization of Information Processing in Artificial Sensory Nervous Systems", 제 28 회 한국반도체 학술대회 (KCS 2021), Virtual, January 25-29, 2021 (**Poster**)

117. G.-T. Go, D.-G. Seo, **T.-W. Lee**, "Stretchable Organic Synaptic Transistor for Wearable Neuro-inspired Electronics", 제 28 회 한국반도체 학술대회 (KCS 2021), Virtual, January 25-29, 2021 (**Poster**)

118. Y.-H. Kim, S. Kim, A. Kakekhani, A. Rappe, **T.-W. Lee**, "Highly efficient perovskite nanocrystal light-emitting diodes via defect suppression", 2021 한국공업화학회 춘계 학술대회, Busan, May 12-14, 2021 (**Invited**)

119. K. Y. Jang, J. Park, and **T.-W. Lee***, "Synthesis of Efficient Blue Emitting CsPb(Br/Cl)3 Nanoparticles by Post-treatment with shor organic ligands and LED fabrication", 제 28 회 한국반도체 학술대회 (KCS 2021), Virtual, January 25-29, 2021 (**Poster**)

120. M.-J. Sung, D.-G. Seo, C. Yang and **T.-W. Lee***, "Influence of Lamellar Orientation in Synaptic Plasticity of Ion-Gel Gated Organic Synaptic Transistors", 제 28 회 한국반도체 학술대회 (KCS 2021), Virtual, January 25-29, 2021 (**Poster**)

121. Y. Kim, Y. Lee, A. Chortos, W. Xu, **T.-W. Lee** "Flexible Organic Artificial Nerves", 2021 대한금속·재료학회 춘계학술대회, Hoengseong, Virtual (Hybrid), April 28-30, 2021 (**Invited**)

122. H.-L. Park, N. Kim, Y.-H. Kim, H. Yang, and **T.-W. Lee***, "Side Chain Engineering for Modulation of Synaptic Decay of Diketopyrrolopyrrol Semiconducting Copolymer-Based Ion-Gel-Gated Organic Synaptic Transistors", 제 28 회 한국반도체 학술대회 (KCS 2021), Virtual, January 25-29, 2021 (**Oral**)

123. **T.-W. Lee**, "Organic Artificial Peripheral Nerves interfacing with Biological Nerves", 2021 한국고분자학회 추계학술대회, Gyeongju, October 20-22, 2021 **(Invited)**

124. K.-N. Kim, H. Zhou, D.-Y. Kim and **T.-W. Lee ***, "Intrinsically Stretchable Light-Emitting Polymers for Wearable Applications of Organic Light-Emitting Transistors", 2021 한국유연인쇄전자학회 학술대회(KFPE) , Hoengseong, December 16-17, 2021 (**Poster**)

125. G.-T. Go, W. Lee, **T.-W. Lee ***, "Modulation of Synaptic Plasticity in Ion-gel Gated Graphene Synaptic Transistor", 2021 한국유연인쇄전자학회 학술대회(KFPE), Hoengseong, December 16-17, 2021 (**Poster**)

126. M.-J. Sung, D.-G. Seo, G.-T. Go, Y.-H. Kim, **T.-W. Lee** *, "Side Chain Redistribution via Blending Semiconducting Polymers as a Strategy to Modulate Synaptic Plasticity", 2021 한국유연인쇄전자학회 학술대회(KFPE) , Hoengseong, December 16-17, 2021 (**Poster**)

127. H. Zhou, S. J. Han, **T.-W. Lee ***, "Work Function Tunable Electrodes for Intrinsically Stretchable Light-Emitting Diodes", 2021 한국유연인쇄전자학회 학술대회(KFPE) , Hoengseong, December 16-17, 2021 (**Oral**)

128. D.-H. Kang, H.-L. Park, J. S. Kim, G.-T. Go, I.-H. Park, J.-M. Heo, **T.-W. Lee***, "Improving Long-Term Plasticity of Metal Halide Perovskite-Based Artificial Synapses by Adopting Ferroelectricity", 제 28 회 한국반도체 학술대회 (KCS 2021), Virtual,

January 25-29, 2021 (**Poster**)

129. D.-H. Kang, H.-L. Park, J. S. Kim, I.-H. Park, J.-M. Heo, **T.-W. Lee***, "Enhancing Long-Term Plasticity of Metal Halide Perovskite-Based Artificial Synapses with Ferroelectricity", 제 29 회 한국반도체 학술대회 (KCS 2022), Jeongseon, January 24-26, 2022 (**Poster**)

130. C. Kim, D.-G. Seo, C. Yang, and **T.-W. Lee***, "Controlling Synaptic Properties in Ion-gel Gated Organic Synaptic Transistors (IGOSTs) by Tailoring Backbone Coplanarity of Isoindigo-based Polymers", 제 29 회 한국반도체 학술대회 (KCS 2022), Jeongseon, January 24-26, 2022 (**Poster**)

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137. **T.-W. Lee**, " Efficient perovskite nanocrystal light-emitting diodes using a modified bar-coating method", 2023 KPFE spring meeting, Yeosu, April 26-28, 2023 (**Invited**)

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116. 이태우, 임상혁, 김영훈, 조힘찬, 코어-쉘 구조의 유무기 하이브리드 페로브스카이트 나노결정입자 발광체, 이의 제조방법 및 이를 이용한 발광소자 (Perovskite nanocrystal particle emitters having core-shell structure, method of manufacturing the same and electroluminescence devices using the same), Application No.10-2014-0153970 (2014.11.06)

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120. 이태우, 민성용, 정렬된 산화물 반도체 나노와이어를 포함하는 전계효과 트랜지스터 어레이 및 그의 제조방법 (Field-effect transistor arrray including aligned oxide semiconductor nanowire and a method for fabricating the same), Application No.10-2014-0175107 (2014.12.08), Registeration No.10-14869560000 (2015.01.21)

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130. 이태우, 임상혁, 조힘찬, 김영훈, 함량이 변하는 페로브스카이트 나노결정입자 발광체, 이의 제조방법 및 이를 이용한 발광소자 (Perovskite nanocrystal particle emitters having gradient-alloy structure, method of manufacturing the same and electroluminescence devices using the same), Application No.10-2015-0156170 (2015.11.06), Registeration No.10-17462950000 (2017.06.05)

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141. 김영훈, 이태우, 금속 할라이드 페로브스카이트 나노결정입자 크기 조절방법 및 이를 이용한 광전자 소자 (Method for controlling size of Metal halide perovskite nanocrystal particle and optoelectronic device using the same), Application No.10-2016-0037534 (2016.03.29), Registeration No.10-17463360000 (2017.06.05)

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multidimension perovskite light-emitting layer and preparation method thereof), Application No.10-2018-0125814 (2018.10.22), Registeration No.10-2130898 (2020.06.30)

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