iMiD 2021
The 21st International Meeting on Information Display
August 25-27, 2021 / COEX, Seoul, Korea

Session Title:	[WA1] Oral 01. Materials and Devices Design with AI/Simulation
Session Date:	August 25 (Wednesday), 2021
Session Time:	13:00-14:30
Session Room:	Room A (101+102)
Session Chair(s):	Seungwu Han (Seoul Nat'l Univ., Korea) Youngmi Cho (Samsung Display Co., Ltd., Korea)

[WA1-1] [Featured Invited] On-line (Live Streaming) / 13:00-13:30

TBA

Alán Aspuru-Guzik (Univ. of Toronto, USA)

[WA1-2] [Featured Invited] On-line (Live Streaming) / 13:30-14:00

Purely Organic Emitters for OLEDs: a Radical Proposition

Jean-Luc Bredas (Univ. of Arizona, USA)

[WA1-3] Off-line / 14:00-14:15

Multiscale Calculation of Carrier Mobility in Organic Solids through the Fine-Tuned Kinetic Monte Carlo Method

Gyubong Kim, Kyungchan Chae, Sunwoo Kang, Youngmi Cho, and Hoilim Kim (Samsung Display Co., Ltd., Korea)

[WA1-4] Off-line / 14:15-14:30

Autonomous Materials Design for More Efficient OLED Devices Using Machine Learning

Sohae Kim, Dongsun Yoo, Jihye Kim, Gyeongheon Kim, Jiyoo Park, Seran Kim, Dahye Cho, Hoilim Kim, Young Mi Cho, and Yongjo Kim (Samsung Display Co., Ltd., Korea)

[WA1-5] [Invited] On-line (Pre-recorded) / On-demand

Design Automation of Efficient Deep Neural Networks in Display Devices

Jae Hun Shim and Suk-Ju Kang (Sogang Univ., Korea)

[WA1-6] [Invited] On-line (Pre-recorded) / On-demand

Kinetic Monte Carlo Modeling of Organic Light-Emitting Diodes Containing Molecules with Large Electric Dipole Moments

R. Coehoorn (Eindhoven Univ. of Tech., The Netherlands), X. Lin (South China Normal Univ., China), C.H.L. Weijtens (Eindhoven Univ. of Tech., The Netherlands), S. Gottardi, and H. van Eersel (Simbeyond B.V., The Netherlands)

[WA1-7] [Invited] On-line (Pre-recorded) / On-demand

Refined Models and Machine Learning for OLED Display Simulation

E. Knapp, M. Battaglia (Zurich Univ. of Applied Sciences, Switzerland), S. Zeder, U. Aeberhard (Fluxim AG, Switzerland), E. Comi, C. Kirsch (Zurich Univ. of Applied Sciences, Switzerland), S. Jenatsch, B. Blülle, and B. Ruhstaller (Fluxim AG, Switzerland)

[WA1-8] [Invited] On-line (Pre-recorded) / On-demand

First-Principles Modeling of Efficiency of Halide Perovskites

Chris G. Van de Walle (Univ. of California Santa Barbara, USA)

[WA1-9] [Invited] On-line (Pre-recorded) / On-demand

Quantum Computing Methods for OLED Materials Design

Scott N. Genin, Ilya G. Ryabinkin, and Michael G. Helander (OTI Lumionics Inc., Canada)

[WA1-10] [Invited] On-line (Pre-recorded) / On-demand

Digital Twins in OLED Development: A Review on Virtual Characterization and Improvement of OLED Materials and Devices

Tobias Neumann, Franz Symalla, Daniel Wehl, Timo Strunk (Nanomatch GmbH, Germany), Simon Kaiser, and Wolfgang Wenzel (Karlsruhe Inst. of Tech., Germany)

[WA1-11] [Invited] On-line (Pre-recorded) / On-demand

An Innovation Platform for Optoelectronics: Synergistic Acceleration of de Novo Design Powered by Multiscale Simulations and Machine Learning

Mathew D. Halls, Yuling An, H. Shaun Kwak, Hadi Abroshan, Paul Winget, David J. Giesen, Anand Chandrasekaran, Mohammad Atif Faiz Afzal, and Christopher T. Brown (Schrödinger Inc., USA)

[WA1-12] On-line (Pre-recorded) / On-demand

Active Learning for the Accelerated Design and Optimization of Novel OLED Materials

Hadi Abroshan, Anand Chandrasekaran, Paul Winget, Yuling An, Shaun Kwak, Christopher Brown, and Mathew D. Halls (Schrödinger, Inc., USA)

[WA1-13] On-line (Pre-recorded) / On-demand

How to Make Fragile Bonds Less Fragile for Robust OLED Materials

Rui Wang, Qing-Yu Meng, and Juan Qiao (Tsinghua Univ., China)

[WA1-14] On-line (Pre-recorded) / On-demand

Development of a New Blue Emitter Using Deep Learning Optical Spectroscopy

Joonyoung Francis Joung, Minhi Han, Minseok Jeong, and Sungnam Park (Korea Univ., Korea)

[WA1-15] On-line (Pre-recorded) / On-demand

Retrosynthesis Planning for Thermally Activated Delayed Fluorescence Molecules

Dongsun Yoo, Seran Kim, Sohae Kim, Jihye Kim, Saerom Park, Hoi-Lim Kim, Youngmi Cho, and Yongjo Kim (Samsung Display Co., Ltd., Korea)