Crystalline Organic Electronics and Photonics-Theory and Experiment

Organizers: Chris Giebink, Oles Isayev, Noa Marom, and Barry Rand
March 23-26, 2026

Monday PM

Georgia World Congress Center | B217
Charge Transport
C. Giebink, O. Isayev, N. Marom, B. P. Rand, *Organizers* | Y. Shao, *Presiding*

2:00 PM. Doping organic semiconductor crystals and strongly correlated two-dimensional hole gases. **J. TAKEYA**

2:30 PM. Elucidating intrinsic charge carrier mobilities in crystalline organic semiconductors. **V. Podzorov**, V. Bruevich

3:00 PM. Spectroscopy-derived Bayesian priors for predictive transport modeling. **C. Varner II**

3:15 PM. Combining charge transport models with structure design in crystalline organic semiconductors. **F. Ortmann**

3:45 PM. Break.

4:15 PM. Ultra-sensitive Hall and photo-Hall measurement to characterize carrier generation, recombination, and transport in polycrystalline organic semiconductor. **J. Euvrard**

4:45 PM. Transport-induced decoherence of the entangled triplet exciton pair. **I. Biaggio**

5:15 PM. Proper extraction of the charge carrier mobility in organic transistors verified via gated Hall and FET measurements of single-crystalline organic semiconductors. **V. Bruevich**, V. Podzorov

5:30 PM. Mechanism of charge transport and exciton dissociation in ordered organic materials from non-adiabatic molecular dynamics simulation. **J. Blumberger**

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Tuesday AM

Georgia World Congress Center | B5 - EXHIBIT HALL ChemPod 11
Excited State Properties
C. Giebink, O. Isayev, N. Marom, B. P. Rand, *Organizers* | J. Vitillo, *Presiding*

8:00 AM. Gaussian processes and graph neural networks for simulating exciton transport in organic semiconductors. **D.M. Packwood**

8:30 AM. Advancing machine learning approaches for the study and discovery of organic semiconductors. **C. Risko**

9:00 AM. Curious case of dipyrrolonaphthyridinedione (DPND). G. He, D. Malinowski, K. Soumahoro, R. Spencer, M.R. Chesler, S.S. Lee, S. Mazumdar, L.M. Campos, **M. Sfeir**

9:30 AM. Flexible thin-crystalline-film platform for cooperative actuation of martensitic molecular crystals. S. Ra, S. Jagdale, M. Jang, J. Jang, K. Hwang, **S. Park**

10:00 AM. Break.

10:30 AM. Towards a theoretical understanding of excitonic properties of crystalline thin films of phthalocyanine. S. Sengupta, Z. Pei, C. Lander, Z. Wei, L.A. Bumm, M. Furis, **Y. Shao**

11:00 AM. Predicting the excited-state properties of crystalline organic semiconductors with gw+bse and machine learning. **N. Marom**

11:30 AM. Intrinsic intermolecular photoinduced charge separation in organic radical semiconductors. **H. Bronstein**

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Wednesday AM

Georgia World Congress Center | B310
Multiexcitoni Phenomena
O. Isayev, N. Marom, B. P. Rand, *Organizers* | C. Giebink, *Organizer, Presiding*

8:00 AM. Controlling energy transport in Singlet Fission materials. **S.T. Roberts**

8:30 AM. Molecular engineering for telecom-band triplet-triplet annihilation upconversion. **J. Vitillo**

9:00 AM. Singlet-fission dynamics in TIPS-pentacene films modified through templated crystallization. **A.E. Bragg**

9:15 AM. Upconversion emission using organic semiconductor interface. **S. Izawa**

9:45 AM. Break.

10:15 AM. Multiexciton spin dynamics in molecular crystals. **J.C. Johnson**, R. Larsen, D. Lubert-Perquel, E. Jones, J.E. Anthony, B. Lattes, Z. Gong

10:45 AM. Elucidating collective excitonic behavior in aggregates of conjugated organic molecules via DNA self-assembly. **R.D. Pensack**

11:15 AM. Morphology dependent fluorescence kinetics in the TADF molecule CzDBA. K. Guo, **T. Maitra**, Y. Li, G. Wetzelaer, P.W. Blom, D. Andrienko

11:30 AM. Structural disorder in organic crystals appears to improve singlet fission according to ultrafast 2D White-Light imaging. **M.T. Zanni**

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Wednesday PM

Georgia World Congress Center | B310
Interfaces
C. Giebink, O. Isayev, N. Marom, *Organizers* | N. Marom, *Organizer, Presiding*

2:00 PM. Organic electronic and photonic materials based on (hetero)acene crystals. **J.E. Anthony**

2:30 PM. Organizing excitons at Organic/2D van der Waals interfaces with nanoscale periodic potentials. **W. Chan**

3:00 PM. Strained crystallization pathways in chiral organic semiconductors. **C. Su**, H. Kok, B.P. Rand, P. Clancy, P. Mastracco, X. Zhou, Y. Loo, Q.C. Burlingame

3:15 PM. Computationally predicting targeted growth of high-mobility metastable phases. **O.T. Hofmann**

3:45 PM. Break.

4:15 PM. Accurate and efficient calculations of electronic and optical properties of heterogeneous organic-inorganic interfaces from many-body perturbation theory. **Z. Liu**

4:45 PM. On-surface synthesis for electrode work function tuning and beyond. **S. Fatayer**

5:15 PM. Role of predictive modeling to design better-performing solution-processed thermoelectric polymers. **P. Clancy**, C. Ganley, Y. Feng, H.E. Katz

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Thursday AM

Georgia World Congress Center | B306
Structure and Photophysics
C. Giebink, O. Isayev, B. P. Rand, *Organizers* | B. P. Rand, *Organizer, Presiding*

8:00 AM. Molecular aggregation and energy transfer dynamics during thermal annealing of an organic film. **C.Y. Wong**

8:30 AM. Exploring the crystallization of chiral organic semiconductors in scalemic ratios. **H. Kok**, C. Su, Y.H. Geerts, B.P. Rand

8:45 AM. Engineering paramagnetic spin centers in sp^2-carbon-conjugated organic frameworks. A. Paul, M. Malik, **R. Ghosh**

9:00 AM. Chirality transfer and circularly polarized luminescence from multicomponent spiral organic nanostructures. S. He, Y. Liu, G. Kumar Tanti, S. Youm, C. Chou, L. Purvis, C. Frisbie, **R. Holmes**

9:30 AM. Break.

10:00 AM. Imaging defects and Doping-Induced space charge on surfaces of organic semiconductor crystals by scanning kelvin probe microscopy. **C.D. Frisbie**, T. He

10:30 AM. Predicting molecular ordering in deposited molecular films. **D. Andrienko**

11:00 AM. Apparent circular dichroism: From characterization to new chiroptical materials. **C. Lin**, R. Tempelaar

11:15 AM. Nitrogen-annulated perylenes: geometric distortions, electronic structure, and design rules for cathode interlayers. **Z.T. Gardner**, K.M. Wolfe, G.C. Welch, C. Risko

11:30 AM. Helicoidal organic semiconductor crystals for (chir)optoelectronics. **S.S. Lee**