**Tuesday, March 19, 2024 | 8am – 12pm session**
Ernest N. Morial Convention Center | R09
Excitonic Strong Coupling with Organic Molecules | J. Owrutsky, *Presiding*

**8:00 AM.** Manipulating materials with mirrors: Insights from multi-scale molecular dynamics simulations. I. Sokolovskii, D. Morozov, E. Pohjolainen, A. Kanakati, R. Tichauer, J. Feist, J. Toppari, **G. Groenhof**

**8:30 AM.** Ultra-fast photochemistry under strong light-matter coupling. A. Dutta, V. Tiainen, N. Markesevic, D. Morozov, H. Qureshi, G. Groenhof, **J. Toppari**

**8:50 AM.** Disorder and darkness: Developing the toolkit for rational polariton photochemistry. **A. Musser**

**9:20 AM.** Modifying triplet photophysics using strong light-matter coupling. **S. Kena-Cohen**

**9:50 AM.** Intermission.

**10:10 AM.** Anomalous coupling of excitons and surface plasmon polaritons in the Kretschmann geometry. M.G. Chowdhury, L. Hesami, S. Howard, K.M. Khabir, M.A. Rab, N. Noginova, **M. Noginov**

**10:40 AM.** If only you knew the power of the dark side…. **E.R. Bittner**

**11:10 AM.** Repulsive two-quantum nonlinear exciton-polaron-polariton correlations in two-dimensional hybrid semiconductors. V. Quiros-Cordero, E. Rojas-Gatjens, M. Gómez-Domínguez, C.A. Perini, N. Stingelin, E.R. Bittner, J. Correa-Baena, **C. Silva**

**11:40 AM.** Probing the polaritonic potential energy surface via Raman spectroscopy. **S. Alam**, Y. Liu, R. Holmes, R.R. Frontiera

**Tuesday, March 19, 2024 | 2pm – 6pm session**
Ernest N. Morial Convention Center | R09
***Joint Session with Recent Progress in Theoretical Methods for Coupled Quantum Systems***
R.F. Ribeiro, *Presiding*

**2:00 PM.** Toward simulations of quantum dynamics at complex plasmonic interfaces. **M. Sukharev**

**2:30 PM.** Linear and nonlinear response of cavity polaritons: Exciton scattering approach. **V.Y. Chernyak**

**3:00 PM.** Ab initio methods for polariton chemistry. **J.J. Foley**

**3:30 PM.** Polaritonic chemistry and the impact of dephasing effects in molecular ensembles. **M. Kowalewski**, E. Davidsson, L. Borges

**3:50 PM.** Intermission.

**4:10 PM.** Quantum modeling of propagating plexcitons in two-dimensional materials. **M. Mosquera**

**4:40 PM.** Polaritonic chemistry from micrometer to nanometer scales. **J. Feist**

**5:10 PM.** Cavity control of molecular spectroscopy and photophysics. **S. Mukamel**, Y. Gu, B. Gu, V.Y. Chernyak

**5:40 PM.** Quantum coherence in cavity polariton chemistry. **J. Cao**

**Wednesday, March 20, 2024 | 8am – 12pm session**
Ernest N. Morial Convention Center | R05
Vibrational Strong Coupling - Dynamics and Chemistry | A. D. Dunkelberger, *Presiding*

**8:00 AM.** Analysis of cavity-suppressed reactivity via vibrational depopulation. **B. Simpkins**, W. Ahn, J. Triana, F. Recabal, M. Michon, A.D. Dunkelberger, J. Owrutsky, F. Herrera

**8:30 AM.** New experimental platforms for molecular polaritonics. **M. Weichman**

**9:00 AM.** Modified analytical treatments describe the reservoir response in cavity coupled systems. **C.G. Pyles**, J. Owrutsky, B. Simpkins, A.D. Dunkelberger

**9:30 AM.** Angle-independent reaction rate extraction from Fabry-Perot cavity coupled systems. **M. Michon**, B. Simpkins

**9:50 AM.** Intermission.

**10:10 AM.** Infrared spectroscopy of vibrational polaritons. **L. Chuntonov**

**10:40 AM.** Reversible unimolecular reactions modified by vibrational strong coupling. P. Askelson, **K.J. Kubarych**

**11:10 AM.** Trivial and nontrivial effects in polariton chemistry. **N. Giebink**

**11:40 AM.** Increasing and decreasing reaction rates by selectively coupling molecular vibrations to photonic cavities. **R. Vergauwe**, G. Groenhof, J. Toppari

**Wednesday, March 20, 2024 | 2pm – 6pm session**
Ernest N. Morial Convention Center | R05
Novel Material Systems for Strong Coupling | B. Simpkins, *Presiding*

**2:00 PM.** Strong coupling in infrared polaritonic media. **J. Caldwell**

**2:30 PM.** Promoting polariton chemistry with plasmonics. **M.T. Sheldon**

**3:00 PM.** Single-Molecule Plasmonic Strong Coupling in Break Junctions. **Norah Hoffman**

**3:30 PM.** Thermodynamics of many molecules with strong light-matter interaction. J.P. Philbin, T.S. Haugland, T. Ghosh, E. Ronca, **M. Chen**, P. Narang, H. Koch

**3:50 PM.** Intermission.

**4:00 PM.** Cavity- and Twist-Engineering of 2D Magnets. **Quiyang Li** and H. Deng

**4:30 PM.** Photophysical and photo-electrochemical properties of CdSe nanoplatelet exciton-polaritons. **T.D. Krauss**

**5:00 PM.** Many-body expansion for polaritonic chemistry: A bridge between theory and experiments? **L. dos Anjos Cunha**, J. Flick, A. Rubio

**5:20 PM.** Novel *ab-initio* techniques for molecular polaritons. **E. Ronca**, R. Roberto Riso, T.S. Haugland, A. Bianchi, C. Schäfer, A. Rubio, H. Koch

**5:40 PM.** Confinement enhanced excited-state relaxation in molecular vibrational polariton. **H. Mao**, Z. Yang, H. Bhakta, W. Xiong

**Thursday, March 21, 2024 | 8am – 12pm session**
Ernest N. Morial Convention Center | R05
Excitonic Strong Coupling - Energy Transfer and Transport | A. Rury, *Presiding*

**8:00 AM.** Ultrafast energy relaxation in carbon nanotube exciton-polariton microcavities. **M. Son**

**8:30 AM.** Effect of exciton-photon polaritons on the distance and efficiency of energy transfer in thin films of carbon nanotubes in donor-acceptor photovoltaic devices. **M. Arnold**

**9:00 AM.** Suppressing excitonic disorder using molecular cavity polariton formation. **S.T. Wanasinghe**, A. Rury

**9:20 AM.** Machine learning framework for modeling exciton-polaritons in molecular materials. **X. Li**, N. Lubbers, S. Tretiak, K. Barros, Y. Zhang

**9:40 AM.** Intermission.

**9:50 AM.** Exciton and exciton-polariton transport imaged by ultrafast microscopy. **L. Huang**

**10:20 AM.** The role of disorder in polariton transport, localization, and chemistry. D. Xu, S. Cheng, I. Lee, **M. Delor**

**10:50 AM.** Disorder effects on the transient transport of excitons in polaritonic wires. **G. Aroeira**, K. Kairys, R. Ribeiro

**11:10 AM.** Reshaping asymmetric synthesis through the strong coupling regime: Chiral molecules in chiral cavities. **R. Roberto Riso**, E. Ronca, H. Koch

**11:30 AM.** Enhanced diffusion and ultrafast ballistic motion of organic exciton-polaritons. **T. Schwartz**

The organizers acknowledge the following sponsors for their generous support: