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|  | **Orbital State Manipulation of a Diamond Nitrogen-Vacancy Center Using a Mechanical Resonator.***Huiyao Y. Chen, E. R. MacQuarrie, and Gregory David Fuchs\** |
|  | **Optical Absorption and Emission Mechanisms of Single Defects in Hexagonal Boron Nitride.***Nicholas Ryan Jungwirth, Nikhil Mathur, Nikola Protic, and Gregory David Fuchs\** |
|  | **GaN/AlN Superlattice Structures for Intersubband Transitions.***Kevin Lee,  Okan Koksal, Jimy Encomendero Risco, Shyam Bharadwaj, SM Islam, Huili (Grace) Xing, Farhan Rana\* and Debdeep Jena\** |
|  | **Design Rules of Polarization-Neutral III-Nitride Heterostructures for Efficient Intersubband Absorption.***Jimy Encomendero, Farhan Rana, Debdeep Jena, Grace Xing\** |
|  | **Molecular Photoswitches Applied in Soft Robotics Transducers.** *Yaqi Tu, Shuo Li, and Robert Shepherd\** |
|  | **Adiabatic Frequency Conversion & Amplification of Ultrashort Optical Pulses.** *Noah Flemens, Wei-Zung Chang, and Jeff Moses\** |
|  | **Single Photon Emission from Hexagonal Boron Nitride with GaN LED Integration.***Ryan Page, Nicholas Jungwirth, Kevin Lee, Shyam Bharadwaj, Nikhil Mathur, Nikola Protic, Yongjin Cho, Grace Xing, Gregory Fuchs, Debdeep Jena\** |
|  | **A Novel Photonic Structure with a Nodal Line of Dirac Cones and a Photonic Topological Insulator that Emerges from it.** *Ran Gladstein Gladstone and Gennady Shvets\** |
|  | **Enhancing Light-Matter Interaction by Coupling MoSe2/WSe2 van der Waals Heterostructures to Confined Photonic Resonances***Liangyu Qiu, Chitraleema Chakraborty, Arunabh Mukherjee, Kumarasiri Konthasinghe, and Nick Vamivakas\** |
|  | **Resonant laser spectroscopy of hBN quantum emitters.***Kumarasiri Konthasinghe, Chitraleema Chakraborty, Nikhil Mathur, Liangyu Qiu, Arunabh Mukherjee, Gregory D Fuchs, and Nick Vamivakas\** |
|  | **Single-photon emitter array in atomically thin semiconductors.**Arunabh Mukherjee *, Chitraleema Chakraborty, Liangyu Qui, Kumarasiri Konthasinghe, and Nick Vamivakas\**  |
|  | **Evaluation of Three-Dimensional Edge Roughness of pre and post etched line and space patterns of Block-Copolymer Lithography.***Shubham Pinge and Yong L. Joo\** |
|  | **Probing the Effects of Various Electrocatalysts on Aqueous Vanadium Redox Flow Battery Performance.***Andrew Shah and Yong L. Joo\** |
|  | **Controlling Surface Morphology and Spatial Distribution of Active Nanoinclusions in Functional Coatings via Novel Air-Controlled Electrospraying Process.***Mounica Divvela, Jin Hong Lee and Yong L. Joo\** |
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|  | **Effect of Flow Structure on Graphite Oxidation in Continuous Taylor-Couette Flow Reactor.***Mohammed AlAmer, and Yong L. Joo\** |
| **18.** | **Efficient Emitter Aggregation Management Using High-Entropy Non-crystallizable Hosts***R. Chakraborty1; M. F. Molaire1; D. S. Weiss1; T. Yu2; L. J. Rothberg2**1Molecular Glasses Inc., 1667 Lake Ave, Rochester, NY 14615* *2Department of Chemistry, University of Rochester, Rochester, NY 14627* |
| **19.** | **Applications of Novel Photonic Devices***Minwoo Jung, Yang Yu, Kueifu Lai, Glen Kelp, Maxim Shcherbakov, Zhiyuan Fan, and Gennady Shvets\** |
| **20.** | **Creating and Braiding Anyons in an Optical Cavity.***Shovan Dutta and Erich J. Mueller\** |