WORKSHOP #1

Opportunities in Soft and Nanoparticle-based Chiral Materials for Light harvesting, Sensing and Information Processing

Organizers: Mircea Cotlet (CFN), Fang Lu (CFN), Linda Peteanu (CMU) and Honghu Zhang (NSLS-II)

The workshop will address the concept of chirality from a perspective of materials synthesis, selfassembly and materials characterization and will discuss progress, challenges and future possible interesting designs and concepts based on soft materials.

| Start Time (ET) | Title | Speaker (Affiliation) |
|----------------------------|---|---------------------------------|
| 8:30-8:50 | Breakfast | |
| 8:50-9:00 | Welcome and Introduction | Peteanu, Lu, Cotlet, Zhang |
| Chair: Linda Peteanu (CMU) | | |
| 9:00-9:40 | Chiral Two-Dimensional Organic-Inorganic Hybrid Perovskites: An Intriguing Materials System for Fundamental Science | Wei You (UNC) |
| 9:40-10:20 | Exploring Chiral Conjugated Polyfurans | Kevin Noonan (CMU) |
| 10:20-10:40 | Coffee break | |
| Chair: Mircea Cotlet (BNL) | | |
| 10:40-11:20 | Solvent-Driven Helix-Coil Transitions in Conjugated Polymers | Linda Peteanu (CMU) |
| 11:20-12:00 | Energy alignment manipulation at the metal oxide interfaces using helical peptides dipoles | Elena Galoppini (Rutgers U.) |
| 12:00-13:20 | Break (Lunch) and CFN tour | TBD |
| Chair: Honghu Zhang (BNL) | | |
| 13:20-14:00 | Programmable assembly of nanomaterials | Oleg Gang (Columbia U) |
| 14:00-14:40 | Chirality from shaped nanocrystals | Fang Lu (BNL) |
| 14:40-15:20 | Chiroptics of twisted molecular crystals | Stephanie Lee (NYU) |
| 15:20-15:40 | Break | |
| Chair: Fang Lu (BNL) | | |
| 15:40-16:20 | Manipulating chiroptoelectronic properties of chiral low-dimensional hybrid perovskites | Qiuming Yu (Cornell University) |
| 16:20-17:00 | Chiral perovskite as a promising semiconductor for opto-spintronics | Wanyi Nie (U. Buffalo) |
| 17:00-17:15 | Concluding remarks, discussions on future of facility needs and wrap up | Peteanu, Lu, Cotlet, Zhang |