



**ADVANCED MATERIALS AND
LIQUID CRYSTAL INSTITUTE**
at Kent State University

NEWS

Research Highlights | Funding News | Facility Updates | Newsworthy Stories

Research Highlights

Chirality in the absence of chiral centers

Chiral ground states of ferroelectric liquid crystals by **O.D. Lavrentovich** et al., *Science* **383**, 1364-1368 (2024).

Fluid filaments of room-temperature ferroelectric nematics

Fluid Ferroelectric Filaments by **A. Jákli** et al., *Adv. Sci.* **11**, 2305950 (2024).

Microactuation of N-LC beads by chemical catalysis

Actuating Liquid Crystals Rapidly and Reversibly by Using Chemical Catalysis by **R.J. Twieg, M. Mavrikakis, N.L. Abbott** et al., *Adv. Mater.* **36**, 2309605 (2024).

Funding News

Yaorong Zheng (Chemistry & Biochemistry) together with Manabu Kurokawa (Biological Sciences) was awarded \$434,000 from the National Institute of General Medical Sciences for their research proposal investigating light-controlled supramolecular platinum complexes for biomedical applications.



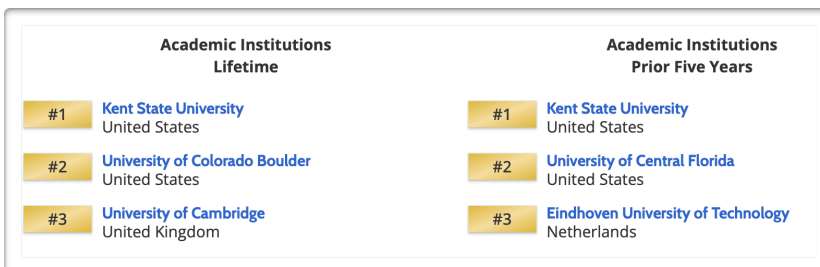
Awards

Hari Krishna Bisoyi, senior chemist at the AMLCI, was awarded the 2024 KSU President's Award of Distinction for his dedicated service and work at the AMLCI.



World-leading scholarly output

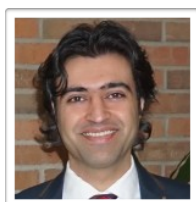
ScholarGPS™ analytics show that KSU (based on the research of members of the AMLCI) leads in the global institutional ranking for scholarly output both Lifetime and over the last five years in *Liquid Crystals*. Several AMLCI researchers are ranked highly as individuals on this list as well, including Drs. **Lavrentovich** (#9) and **Jákli** (#13).



Other News

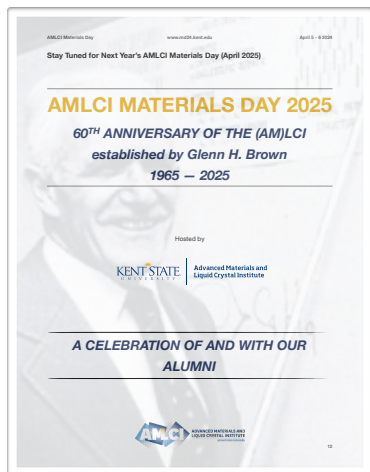
Familiar Faces: **Mojtaba**

Rajabi, who obtained his Ph.D. in the Lavrentovich lab, joined us mid-June as



the new research associate overseeing the materials characterization section of the AMLCI Characterization & Imaging Facility. Please extend a warm “Welcome Back” to Mojtaba!

The **2025 AMLCI Materials Day** will be held from April 25 to 26, 2025. This special event will be dedicated to celebrate the **“60th Anniversary of the (AM)LCI”** with a focus on reconnecting and intensifying relationships with (AM)LCI alumni around the globe.



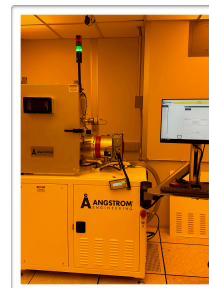
AMLCI Facilities - Flyers

To better serve our academic and industry communities, AMLCI facility managers created new, informative flyers highlighting our instrumental capabilities. The flyers are available in our Member Portal (located on the AMLCI website) as well as in print so that members can easily share these with colleagues and more easily attract external users.



New SiO_x Deposition

A new thermal evaporator (initially configured for SiO_x alignment layer deposition at varying angles) from Angstrom Engineering will soon be available (i.e., mid-July) in our Cleanroom Research & Prototyping Facility at AMLCI.



AMLCI-DI Materials & Devices Startup Challenge

At the 2024 AMLCI Materials Day (MD24), two teams competed for the AMLCI-DI Materials & Devices Startup Challenge, giving pitch presentation describing the technology and business plan. Supported by the Lennon Fellowship, the Provost, and R&ED (judged by attendees from industry), the first prize went to **BioSculpt**, a team developing 3-D printed microfluidic cells; the second prize to **WHAtaHAK**, focusing on smart-windows.