

NEWS FROM THE ANALYTICAL INSTRUMENTATION FACILITY (AIF) - AUGUST 2021



Meet AIF's Newest Staff Member, Dr. Jenny Forrester

Please join us in welcoming AIF's new XRD lab manager, Dr. Jenny Forrester! An Australian native, she received her Ph.D. in Materials Engineering in 2003 at the University of Newcastle. She has more than twenty years of experience in data collection using X-ray diffraction. Learn more about Jenny and contact her by clicking the link below.

[Meet Jenny »](#)



Plan to Attend AIF's Open House on August 27, 2021

Please join us for our annual Open House & User Appreciation on August 27 at 9:00am. During this time, we'll have coffee and pastries, an introduction for new users (presented by Dr. Aaron Bell), and AIF tours for new and existing users. Location: Monteith Research Center, room 454.

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Welcome AIF's New X-ray CT Postdoctoral Researcher, Dr. Ruksana Baby

Please also join us in welcoming AIF's new X-ray CT expert, Dr. Ruksana Baby! Ruksana earned her Ph.D. in Fiber and Polymer Science (2021), and MS in Textile Engineering (2017) from North Carolina State University. Her duties include X-ray Microscopy and Computed Tomography (CT) services along with analysis and interpretation of data and provides technical advice to researchers studying a variety of material classes.

[Contact Ruksana »](#)



New Instrument Alert: Helios Hydra G5 - Plasma Focused Ion Beam

The Helios Hydra G5 is very different than the Quanta 3D FIB. Instead of a gallium liquid metal ion source, the Hydra uses gas-based plasmas for milling and deposition. The advantages of using plasma is that beam currents can be much higher, leading to much faster mill rates, meaning one can spend less time milling features or mill much larger features. In fact, the Hydra enables milling on the millimeter length scale--a massive improvement over the Quanta! The Hydra is a wonderful addition to our materials characterization toolset, and we're excited for our users to explore its capabilities.

[Learn More »](#)



Success for RTNN's Research Experience for Teachers

This year, 10 educators around North Carolina spent 5 weeks using various facilities, including AIF, to conduct research. From analyzing DNA to human hair samples, they had a successful summer. One of the teachers, Diamond "Ridge" Ridgeway, made a YouTube video discussing her experience.

[Watch Here »](#)



Carolina Science Symposium

The Carolina Science Symposium will be held at the McKimmon Center on November 12. The symposium is expected to draw about 100 participants, both locally and from the surrounding region. Make sure to register by October 29!

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New Youtube Video

[AIF Operations Manager, Roberto Garcia, demonstrates how to run an experiment using the Rigaku XRD. Interested in learning more about AIF's XRDs? Contact Jenny Forrester at \[jsforres@ncsu.edu\]\(mailto:jsforres@ncsu.edu\).](#)

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