

NEWS FROM THE ANALYTICAL INSTRUMENTATION FACILITY (AIF) - OCTOBER 2020



AIF Acquires Thermo Fisher Helios Hydra Dual Beam Focused Ion Beam

Professor Elizabeth Dickey recently won a 2020 NSF MRI award to acquire the latest plasma Focused Ion Beam (pFIB) system. The Helios 5 Hydra CX is a focused ion beam (FIB) instrument with multiple ion species. It is expected that the pFIB will arrive in early 2021 and be available for general use a few months later. [Click here to read more details.](#)

[Helios 5 Hydra CX »](#)



AIF User Spotlight

Michael Spencer is a 4th year PhD student in Materials Science and Engineering, working in Dr. Veronica Augustyn's research group. The majority of his research thus far has focused on the development of a free-standing 3D electrode architecture for Li-ion batteries. [Read more about this future leader here.](#)

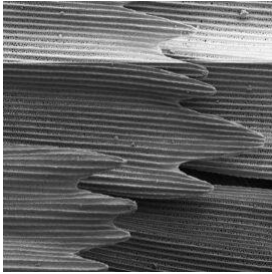
[Meet Michael »](#)



Understanding How Materials Behave in Extreme Environments

The Djamel group, along with collaborators, looked at thin iron films and how ion irradiation (which is used to simulate neutron irradiation without causing residual radioactivity) damaged these films. They used the FIB and TEM in the AIF to prepare and characterize the defect structures within these iron thin film samples before and after ion irradiation.

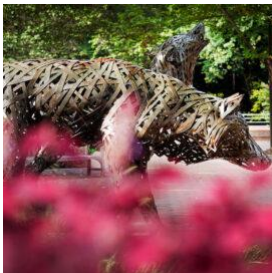
[Access Recording »](#)



What Material Are You?

Are you a metal, polymer, composite, ceramic, or bio material? Take this fun, five question quiz to find out!

[Click Here »](#)



AIF Program Specialist Wins COE Award of Excellence

Anna Lumpkin is recognized as a 2020 winner of the NC State College of Engineering Award for Excellence. Her contributions at NC State stand out as exemplary in the areas of customer service and the staff, faculty, and students who run and utilize the AIF are incredibly proud of her service, dedication, and accomplishments.

[Learn More »](#)



Final Reminder: Virtual Carolina Science Symposium - November 12-13, 2020

The popular local science meeting, Carolina Science Symposium, is going virtual this year. Topics include materials science, processing, nanotechnology, characterization, and biomaterials and will be presented by invited and student contributors. The symposium is joint with the Materials Research Society, ASM International, the American Vacuum Society, the Research Triangle Nanotechnology Network, and the Joint School of Nanoscience and Nanoengineering. Interested? RSVP by October 30.

[CSS Information »](#)



2020 R. J. Reynolds Award Lecture by AIF's Director, Dr. Jacob Jones - November 9

Please join the College of Engineering on Monday, November 9, 2020, from 2 – 4:30 PM at a virtual celebration as we honor AIF's Director, Dr. Jacob Jones, for being selected as the 36th

recipient of the R. J. Reynolds Tobacco Company Award for Excellence. The deadline to register is Thursday, October 29, 2020 by 5pm eastern time.

[More Information »](#)

[Congratulations to Kun Luan at NC State University for Winning Most Unique in NNCI's Plenty of Beauty at the Bottom Contest »](#)