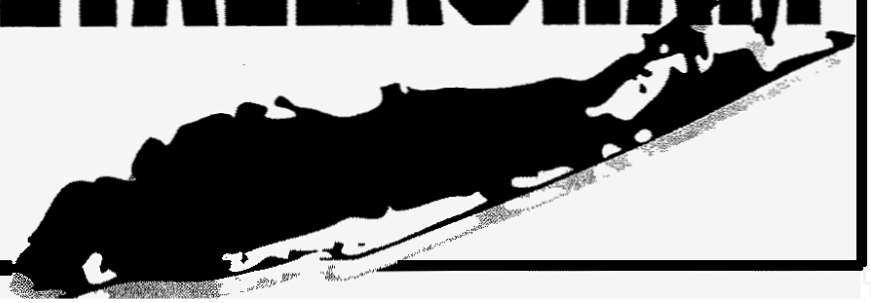




METALLAGRAM

LONG ISLAND CHAPTER



Volume 65 Issue 2

Chapter website: <http://DoL1.eng.sunysb.edu/asm/>

Emerging Professionals Night

Next Meeting Wednesday October 18th, 2023

Where: Pollo Rico Latin Bistro, Centereach, NY

Topic: Handling Radiation Damage in Nuclear Reactors

Speaker: Cormac Killeen, Stony Brook University

Social hour ... 6:00 pm Dinner ... 7:00 pm Meeting ... 8:00 pm

Members ... \$25 Guests ... \$27 Students ... \$15

(New and recently transferred-in members free)

Reservations appreciated – contact Dan Migliorino

at MigliorinoDan@gmail.com or 516-468-9615

Pollo Rico is located at 2435 Middle Country Road (Rte. 25), Centereach. Probably the simplest way to get there from the LIE is to take Exit 62 (Nicolls Road) and go north on CR 97 (towards Stony Brook). Continue north for about 3 miles then take the exit to Rte. 25. At the traffic signals at the end of the ramp go left and head west (Smithtown). The restaurant will appear after about 1.5 miles, on the right side of the highway. Their telephone number is 631-471-0585. Their website is: <http://www.polloricolatinbistro.com/>

Abstract

The metals used as cladding for nuclear reactors will be exposed to extreme environments of high temperature and fluxes of radiating particles. Over time, interactions of radiating particles with host atoms can lead to defects that alter the material as they evolve at elevated temperature. Specifically, helium atoms are introduced into the microstructure, and interact with the host material to degrade its properties over different length scales. This work quantifies these He defects as they evolve, and identify unique microstructures that can be engineered to alter the incubation stage of the gaseous defects such that they do not change microstructural properties.

Speaker

Cormac Killeen is a fifth-year PhD student in Materials Science, researching for Professor Jason Trelewicz in the Engineered Microstructures and Radiation Effects Laboratory (EMREL). His specialty is designing metals to be used as cladding for future nuclear fusion reactors with unique microstructures, to be able to handle the extreme environments inherent to those systems. As an experimentalist, he has experience in transmission electron microscopy, multimodal synchrotron spectroscopy, and nano-mechanical testing. He also has a BS in Physics from SBU in 2019. His future plans include continued work in clean energy, specifically in designing fusion technologies.



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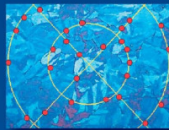
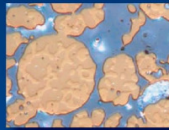
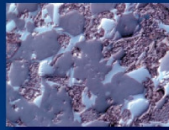
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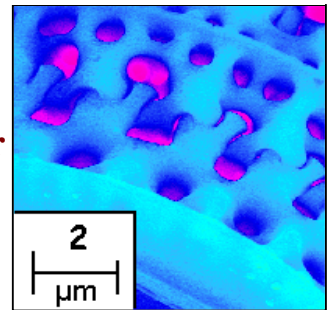
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ON-LINE FORUM

ASM now has an active on-line forum called "ASM Online Member Community". You can join by going to:

<https://www.asminternational.org/communities>

Long Island Chapter Meeting Schedule

- Oct 18, 2023** TBA
Cormac Killeen, SBU
Pollo Rico, Centereach, NY
- Nov 13, 2023** Student-Nite at SBU, rm301, Monday
- Dec 13, 2023** CMAS Coating
Jon Guttleber, Oerlikon/Metco
Pollo Rico, Centereach, NY
- Jan TBA, 2024** Joint meeting w/ LIANS
Pollo Rico, Centereach, NY

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www.asminternational.org/web/metro-nynj-chapter

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