



Bridge to Doctorate Meeting Minutes September 24, 2018

Meeting led by: Jessica Maita
Minute Taker: Cristian Aviles-Martin

Research Presentation (Jessica Maita)

- Microstructural and mechanical applications of amorphous Boron
- Applications: Anvil cell research, Li-Ion batteries, aerospace engineering
- Motivation: Mechanical, and microstructural features of interest for engineering processes.
- Characterization: Transmission electron microscopy imaging revealed smooth surfaces with boron deposition on top and wide scope of unorganized arrangement of atoms. Diffraction pattern suggest cluster structures.
- Mechanical Characterization: Scanning Electron Microscopy with Nanoflip™ technology to build pillars of the material at nanoscale that is tested mechanically to fracture.
- Future work: Tensile stress tests, study of size effect when pillar diameter is less than 2 μm
- Feedback on presentation: Communicate a good motivation for research, Identify and call out images as they are discussed.

Graduate Student Mental Wellness Discussion (Jessica Maita)

- Presence of anxiety and depression rates reported in up to 41% of graduate students, current tendency is a slow increase.
- Resources available: UConn Graduate student wellness link (shs.uconn.edu/gradlink)

Academic Conferences:

- Brief discussion on reasons and logistics about attending academic conferences.
- Check with your department about the process for funding or reimbursements.
- Take advantage of networking opportunities with other students or experts in your field.
- If you do meet interesting people, follow up for possible collaborations or professional relationships.
- Also RELAX! You're at a conference enjoy some free time.