



Department of Physics and Astronomy
SPRING 2024 Colloquium Series

“Permeability of Polylactic Acid (PLA) at Low Temperatures”

Jeydon Jennings

Sac State Physics Major

Polylactic acid (PLA) is a thermoplastic commonly used as a 3D printing filament. The flow of helium through a PLA sample was monitored at temperatures ranging from room temperature (300K Kelvin) to 1.4 Kelvin. A sample of 3D-printed PLA was epoxied inside a copper tube, which was then mounted inside the cryostat. Outside the cryostat, the pressures of the helium fill lines on either side of the sample were monitored at room temperature. The pressure differences allow insight to be gained about the permeability of helium through the PLA sample and the material's usefulness in low-temperature applications.

Thursday, May 2, 2024

4:00 - 5:20PM

MND1015

Open & Free to all students, faculty and public