

ACCELERATOR SEMINAR

“Defects and Defect Interactions in Niobium”

***Gary Collins,
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An overview will be given of defect and defect interactions in high-purity niobium. The focus will be on intrinsic point defects (vacancies and self-interstitials) and dislocations produced as a result of plastic deformation during mechanical forming. At ordinary temperatures, niobium readily absorbs hydrogen atoms, which diffuse interstitially through the lattice, trapping at vacancies and dislocations and modifying their mobilities. Indeed, it is difficult to remove the hydrogen. Substantial insight into hydrogen-defect interactions has been obtained using microscopic methods such as positron annihilation and perturbed angular correlation spectroscopies and will be surveyed in my talk.

Coffee before seminar at 10:45 a.m.

**Thursday, March 28, 2013
11:00 a.m.
CEBAF Center, Room F113**