

Robert A. Erck

Metallurgist
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Professional Experience

- Research and Development
 - Development of metal and compound coatings for tribological application
 - Measurement of adhesion and microstructural properties of thin coatings
 - Investigations of radiation-induced segregation in refractory metals
 - Facility development for research on advanced coating and implantation processes
 - Facility development for research on hydrogen effects in refractory metals for fusion reactor use
 - Facility development for magnetically levitated flywheel research
 - Facility development for metal-organic chemical vapor deposition of ferroelectric films
 - Facility development for IBAD textured thin films

- Technical Expertise
 - Metal organic chemical vapor deposition
 - Pulsed laser deposition
 - Vacuum evaporation
 - Transmission electron microscopy
 - Scanning electron microscopy
 - Rutherford backscattering spectroscopy
 - Kinetics of radiation effects in metals
 - Ion-beam-assisted deposition of thin films
 - High-vacuum technology
 - Accelerator operations

Publications

Author or co-author of more than 60 publications on tribology of coatings, thin-film adhesion, and kinetics of radiation effects in metals

Education

PhD, Metallurgical Engineering, University of Illinois
MS, Physics, University of Illinois