

# UNH Materials Science Seminar

11:10-12:00, Thursday, Feb. 19, 2009  
DeMeritt Hall 240, University of New Hampshire

## The Green of Silver: Controlled Release Antimicrobial Delivery

**Dr. Jeffrey Trogolo**

Agion Technologies, Inc., Wakefield, MA

Silver has been used for millennia as a natural antimicrobial, well before microbes were identified as the cause of disease and spoilage. Many forms of silver have been employed - metallic, salts, aqueous solutions and organometallic compounds such as silver proteins. Silver has come a long way since silver foils lined water vessels over 2000 years ago. Modern technology allows silver to be used very efficiently in a range of applications that had previously used chemical based antimicrobials. Combining silver with controlled release technology allows the use of very low active levels, providing a natural and “green” solution in many sensitive applications such as medical devices, water filters, food contact surfaces and healthcare facilities.

Dr. Trogolo is Chief Technology Officer at Agion Technologies, Inc. He joined Agion in 1998, after serving as Research Director for orthopedic device applications at Spire Corporation. While at Spire, Dr. Trogolo developed silver antimicrobial applications using ion beam assisted deposition onto metal and polymer substrates and surface modification for artificial joints. Earlier, he operated Niche Microstructural Corporation, a materials characterization and consulting firm. Dr. Trogolo has generated 11 patents with 8 more pending, and has published papers in journals including the Journal of Materials Science, Journal of Electronic Materials and Proceedings of the Society for Biomaterials and the Materials Research Society. Dr. Trogolo earned his Ph.D. in Materials Science and B.S. in Materials Engineering from Rensselaer Polytechnic Institute.

**Host: Professor James Harper, x1962**