

Dr. Stepp received his Ph.D. in Mechanical Engineering and Materials Science from Duke University in 1998, where he investigated the high-strain rate deformation and damage accumulation mechanisms governing tantalum and developed a novel, statistically-based, computational algorithm to enhance positron annihilation lifetime spectroscopy under the guidance of Dr. Phillip Jones. Dr. Stepp has published research in the areas of smart materials, structural ceramics, and polymer degradation and failure mechanisms. Dr. Stepp has served as the Chief of the Materials Science Division at ARO since 2004, and as Chief of the Mechanical Behavior of Materials research branch since 1999. As chief of the Materials Science division, he oversees four scientific branches (totaling nearly \$40M annually in extramural basic research) seeking to push the frontiers of materials science in order to enhance future war fighter and battle systems capabilities. As chief of the mechanical behavior of materials research branch, he oversees a diverse array of more than fifty extramural research programs seeking to develop and explore materials with revolutionary properties and function totaling more than \$20M annually. Dr. Stepp has also served as an Adjunct Assistant Professor at Duke University in the Department of Mechanical Engineering and Materials Science since 1999, where he is conducting research exploring fundamental microstructure-property relationships in polycarbonate and serves as an NRC research advisor in the area of structure-property relationships in hydrogels. In addition, Dr. Stepp serves as the scientific advisor for nanotechnology for OSD/DDR&E, as the OSD representative of the NSTC Subcommittee on Nanoscale Science, Engineering, and Technology (NSET), and as the US Army representative to the Technical Cooperation Program MAT-TP-5: Nondestructive Evaluation for Asset Life Extension and Integrity.