NRL BAA Announcement
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MATERIALS SCIENCE OF ENERGETIC THIN-FILM DEPOSITION PROCESSES

Thin films and coatings have become the bedrock of high technology electronic and optic devices, for protective coatings in aerospace and tooling, and now for micro mechanical devices. Furthermore, as traditional structural materials reach their limit in strength, coatings and surface modification are the only means to obtain an increase in material performance.

The Naval Research Laboratory (NRL) is interested in receiving experimental and theoretical proposals that address the fundamental processes which control film microstructure and properties, and that characterize and apply the resulting films. Topics of interest include the formation of new metastable phases, epitaxial growth, films with controlled nanophases, fabrication of tailored composition profiles, multilayer films for opto-electronics, optics, and biomedical applications, and hard coatings for wear and corrosion resistance. Fundamental research includes the effects of ion bombardment on gas adsorption and desorption, on film orientation, microstructure, adhesion and intrinsic stress.

Address White Papers (WP) to, Code 6360, or e-mail, telephone (202) 767-4786. Allow one month before requesting confirmation of receipt of WP, if confirmation is desired. Substantive contact should not take place prior to evaluation of a WP by NRL. If necessary, NRL will initiate substantive contact.