Postdoctoral Researcher for Novel Materials

Organization

US Army Combat Capabilities Development Command (CCDC)- Army Research Laboratory

About CCDC-Army Research Laboratory (ARL)

The CCDC-Army Research Laboratory is the US Army's corporate research laboratory. It was activated in 1992, with a genealogy dating back to the early 19th century. The ARL history is full of discovery, innovation, and pays tribute to thousands of scientists and engineers who have performed not only foundational research but also cultivated critical knowledge and insights that lead to superior Army force modernization capabilities for the US war fighters.

About Weapons and Materials Research Directorate (WMRD)

The goals of the Weapons and Materials Research Directorate (WMRD) are to enhance the lethality and survivability of weapons systems, and to meet the soldier's technology needs for advanced weaponry and protection. Research is pursued in energetic materials dynamics, propulsion/flight physics, projectile warhead mechanics, terminal effects phenomena, armor/survivability technologies, environmental chemistry, and advanced materials (energetic, metals, ceramics, polymers, composite/hybrids, and mechanics) for armor, armament, missiles, ground vehicles, helicopters, and individual soldier applications necessary for maintaining and ensuring supremacy in future land warfare.

Position Description

The Detonation Science and Modeling Branch, Lethality Division of WMRD, CCDC-ARL is seeking an exceptional Postdoctoral Researcher to conduct research on plasma-based chemical synthesis and surface functionalization for novel materials. In this position, you will investigate applicable plasma chemistry and physics, employ methodologies, and conduct material characterization for new pathways of producing a wide variety of novel materials for Army applications. You will work with scientists and engineers having multi-disciplinary expertise from ARL and external DoD/university partners to address and resolve technical challenges in the field related to mission and customer-funded programs.

Position Requirements

- Must be a US citizen (dual citizenship negotiable)

- A doctorate degree in an appropriate discipline (Materials Science, Chemical Engineering, Mechanical Engineering, Chemistry, Physics)
- Previous plasma research and industrial experience is especially desired
- Other previous research and industrial experience is preferred but NOT required
- Hands-on experience and/or expertise in material characterization techniques are preferred. They include but not limited to transmission electron microscopy (TEM), scanning electron microscopy (SEM), atomic force microscopy (AFM), X-ray Photoelectron Spectroscopy (XPS), Powder X-ray Diffraction (XRD)
- Excellent written and oral communication skills
- Excellent adaptability to new research team/project assignment per organization needs

Application Package Requirements

- Cover letter
- Curriculum Vitae or Resume
- Transcripts
- Statement of doctorate and post-PhD research/industrial experience
- Three reference letters

Point of Contact:

Dr. Chi-Chin Wu

Email: chi-chin.wu.civ@mail.mil

Work Phone: +1-410-306-1905.

Due to COVID-19 Pandemic, the best way to contact Dr. Wu is via email above or leave a message on (443)567-6586.