THE Ames Laboratory

Creating Materials & Energy Solutions

Materials Preparation Center

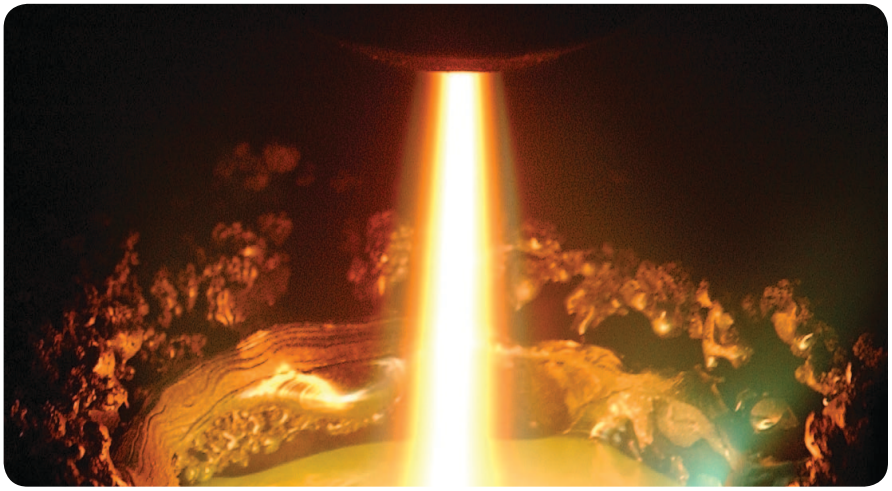
www.mpc.ameslab.gov

The Materials Preparation Center is a one-of-a-kind Department of Energy Office of Basic Energy Sciences, Division of Materials Sciences and Engineering specialized research center. The MPC prepares, purifies, fabricates and characterizes research-sized quantities of rare-earth, alkaline-earth and refractory materials.

The MPC was established in 1981 by the DOE's Ames Laboratory to give scientists at university, industry and government laboratories access to novel materials and new technologies as they are developed. Each year, the MPC satisfies hundreds of requests for customized materials and services not available from commercial suppliers and that are unmatched in quality anywhere else in the world. MPC scientists perform their work on a cost-recovery basis.

The MPC's activities are built around the internally recognized achievements of scientists at the Ames Laboratory, who work with high-purity rare-earth, alkaline-earth and refractory metals. The MPC prepares research-quantity, pure metals and alloys in single and polycrystalline forms. The center also develops processing techniques required for special preparations of these metals and alloys.

The MPC transfers new knowledge about materials-processing equipment and techniques through on-site training for client representatives.



The plasma torch in the Retech plasma furnace is one tool used in the Materials Preparation Center.

The MPC is renowned for its outstanding technical expertise in alloy design, creating materials that exhibit ultra-fine microstructures, and high strength and high conductivity properties of great potential value to American technology.

Satisfied customers include:

NASA/JPL, Max Planck Institute, Vander Waals-Zeemann Institute, Stanford University, Los Alamos National Laboratory, National High Magnetic Field Laboratory, Brookhaven National Laboratory, American Superconductor, Pratt & Whitney, Florida State University, CEA Grenoble, National Institute of Metals (JAPAN), University of California Santa Barbara, University of California Irvine, Oak Ridge National Labortory, NIST, Naval Surface Warfare Center, MIT, Marlow Industries, Hach Company, Lockheed Martin, University of Wisconsin.

CONTACT INFORMATION:
Lawrence Jones
jonesll@ameslab.gov
www.mpc.ameslab.gov
515-294-5236
121 Metals Development Building,
Ames, IA 50011-3020