United States Department of Energy

Department of Energy Achievement Award

Presented to

The Office of Science's High Resolution and Mass Accuracy Capability Development Project

The High Resolution and Mass Accuracy Capability (HRMAC) project, at the Environmental Molecular Sciences Laboratory, successfully delivered the world's highest resolution, first-of-its-kind mass spectrometer. The \$17.5 million project developed a high field magnet (21 Tesla) and a control system and integrated them to produce a one-of-a-kind mass spectrometer system. This project closes a capability gap; improves the ability to resolve, or distinguish, molecules with nearly similar size and mass; and measures molecules to a very high level of accuracy. This effort enables advances in microbial community biology; biomass conversion to biofuels; carbon sequestration and climate change; environmental remediation; energy efficiency; and national security. The project team is recognized for its outstanding ingenuity and innovative solutions to complex technical and vendor problems that enabled the project to compress the schedule and maintain the original Critical Decision 4 date in the face of significant vendor delays.

Ernest J. Moniz

Secretary of Energy

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