

Award Selection

The Office of Science of the Department of Energy is pleased to announce that 10 projects (listed below) have been selected to receive funding as part of competition for research in ultrafast chemistry and materials sciences sponsored by the Office of Basic Energy Sciences (links to funding opportunities shown below). The research efforts will take advantage of new and emerging capabilities to probe materials and chemical processes at time scales of a quadrillionth of a second or less. The goal is to help speed discovery of new materials and chemical processes through better step-by-step observation and control of matter's behavior at atomic and molecular scales.

Projects announced at this time are selections for negotiation of financial award. The final details for each award are subject to final grant and contract negotiations between DOE and the awardees.

Principal Investigator	Institution	City, State	Proposal Title
Chen, Lin	Argonne National Laboratory (ANL)	Lemont, IL	Deciphering Directional Excited-State Charge Transfer Mechanisms Using Ultrafast XFEL Science
Ginsberg, Naomi	University of California, Berkeley	Berkeley, CA	Elucidating Emergence in Multiscale Driven Systems
Heinz, Tony	SLAC National Accelerator Laboratory	Menlo Park, CA	Following Ultrafast Reaction Dynamics and Capturing Rare Intermediates in Heterogeneous Catalysis
Khalil, Munira	University of Washington	Seattle, WA	Probing and Controlling Electronic Correlations and Vibronic Coupling During Ultrafast Intramolecular Electron Transfer in Solvated Mixed Valence Complexes
Mukamel, Shaul	University of California, Irvine	Irvine, CA	Theory and Simulation of Ultrafast Multidimensional Nonlinear X-ray Spectroscopy of Molecules
Nelson, Keith	Massachusetts Institute of Technology	Cambridge, MA	Novel Terahertz-Induced Quantum States Probed with Ultrafast Coherent X-Rays
Robinson, Ian	Brookhaven National Laboratory (BNL)	Upton, NY	Dynamics and Control of Magnetic and Charge Order in Complex Oxides
Rudenko, Artem	Kansas State University	Manhattan, KS	Investigating Charge Transfer and Charge Migration on the Few- to Sub-Femtosecond Time Scale
Shen, Zhixun	SLAC National Accelerator Laboratory	Menlo Park, CA	Control and Understanding of Novel States of Matter Using Ultrafast Modalities from LCLS-II
Singer, Andrej	Cornell University	Ithaca, NY	Engineering Interfaces and Defects in Heterostructures for Controlling the Properties of Non-Thermal Phases in Quantum Materials

[FOA](#) (806KB)

[Lab Announcement](#) (522KB)