

FY 2015 Approved LDRD Projects

Directorate	Department	Investment #	Project Title	Principal Investigator
BES	CO	LDRD13-013	Electrochemical Reduction of CarbonDioxide on Surface-Modified Metal Electroces	Polyanskiy,Dmitriy
BES	CO	LDRD13-038	Catalysis Program in Sustainable Fuels	Chen,Jingguang
BES	CO	LDRD14-035	Operando Studies of C1 Catalytic Reactions: Probing Model and Technical Catalysts at High Pressures using Soft X-Rays	Rodriguez,Jose
BES	DC	LDRD14-005	1st Light: Elucidating Solid-Solid Interfaces in Energy Storage Systems	Takeuchi,Esther
BES	NC	LDRD14-036	Correlative Microscopy, Spectroscopy and Diffraction with a Micro-	Stach,Eric
BES	NC	LDRD15-009	Nanoconfined Polymer Electrolytes for Rechargeable Lithium-Metal	Black,Chuck
BES	NC	LDRD15-010	Hydrocarbon chemistry on zeolite model systems: towards a detailed understanding of energy-relevant chemical transformations using in-situ techniques at NSLS-II, CFN and Chemistry Department	Boscoboinik,Anibal
BES	NC	LDRD15-011	Revealing the structure and dynamics of discrete meso-architectures	Gang,Oleg
BES	PM	LDRD12-007	Complex Modeling: Leveraging Advanced Scattering Data with Computation to Push Back the Materials Complexity Frontier	Billinge,Simon
BES	PM	LDRD14-037	Imaging Electronic Texture in High-Temperature Superconductors	Wilkins,Stuart
BES	ST	LDRD12-025	Flow-Based Battery Architectures for Large Scale Electrical Energy	Erdonmez,Can
BES	ST	LDRD13-022	Tracking Lithium Electrochemical Reaction in Individual Nanoparticles at NSLS-II	Wang,Feng
BES	ST	LDRD13-024	Elucidating the Role of Nanostructured Domains in CIGS PV Device	Eisaman,Matthew
BES	ST	LDRD13-025	Holistic Approach to Sizing Battery Energy Storage Systems for Improved Grid Inertia Response	Wang,Xiaoyu
EBNN	CC	LDRD13-017	A NSLS-II Workflow Prototype System for Supporting Data Intensive Beamline Experiments	Yu,Dantong
EBNN	CC	LDRD14-024	Enable Early Sciences in NSLS-with Experiment-Driven Big Data Stream	Harrison,Robert
EBNN	EE	LDRD12-012	Inter-Individual Variation in Radiation-Induced Epigenetic Modifications and their Potential Impact on Carcinogenesis	Wilson Jr,Paul
EBNN	EE	LDRD12-015	Developing an Integrated Atmosphere-Ecosystem Model for Investigating Interactions between Atmospheric System and Ecosystem under a Warming Climate	Wu,Wei
EBNN	EE	LDRD13-020	Synthetic Control of Lipid Biosynthesis in Plant Vegetative Tissue	Shanklin,John
EBNN	EE	LDRD14-028	Tissue-specific Matabolic Models in Plants	Schwender,Jorg
EBNN	EE	LDRD14-026	Increasing Efficiency of Nitrogen Use by Plants; a Prerequisite for Bioenergy Crops on Marginal Lands	Babst,Ben
EBNN	EE	LDRD15-020	A new frontier for improving processes for regional and global climate modeling	Lin,Wuyin
EBNN	NE	LDRD13-027	In-Situ Studies of Interfaces under Extreme Environments	Gill,Simerjeet
EBNN	NN	LDRD14-003	Boron Arsenide Thin Films for Next-Generation Thermal Neutron	Cui,Yonggang
EBNN	NN	LDRD15-025	Growth of Self-activated scintillators for dual gamma and neutron detection	Roy,Utpal / Carmarda,Giuseppe
NPP	AD	LDRD13-003	Testing eRHIC Beam-Beam Effects with CeC Accelerator	Litvinenko,Vladmimir
NPP	AD	LDRD13-005	Permanent Magnet Solution of the eRHIC with the NON-SCALING FFAG	Trbojevic,Dejan
NPP	AD	LDRD15-003	Bunch-by-Bunch Beam Position Monitor for eRHIC	Minty,Michiko
NPP	AD	LDRD15-005	Advanced Coherent Electron Cooling	Litvinenko,Vladmimir
NPP	AD	LDRD15-006	Design, Fabrication and test of SRF cavity prototype for eRHIC ERL	Xu,Wencan
NPP	AM	LDRD14-011	High Performance Direct Winder Superconducting Magnets	Parker,Brett
NPP	PO	LDRD13-006	Time-Resolved Imaging of X-Rays and Charged Particles	Nomerotski,Andrei
PS	PS	LDRD12-018	Conical Slit for Probing Buried Micron or Sub-Micron Volumes for Dynamic Measurements of Heterogeneous	Bouet,Nathalie C
PS	PS	LDRD12-023	Femto-second X-ray Pulse Generation by Electron Beam Slicing	Yu,Li Hua
PS	PS	LDRD13-031	Modulation Enhanced Diffraction: a new tool for powder diffraction and total scattering studies	Dooryhee,Eric
PS	PS	LDRD13-032	Development of a wavelength metrology tool for beamline	Idir,Mourad
PS	PS	LDRD13-033	Multidimensional Imaging Data Analysis: from images to science	Lee,Wah-Keat

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PS	PS	LDRD13-034	Atomic resolution elemental mapping using x-ray assisted STM	Nazaretski, Evgeny
PS	PS	LDRD14-021	In-Situ Investigation of the Strain Distribution in Next-Generation 3D Transistors Using X-Ray Nanodiffraction	Yan, Hanfei
PS	PS	LDRD15-038	Segmented Adaptive-Gap Undulator with Different Period Lengths in Segments for Production of High Flux and Brightness Hard X-rays at NSLS-	Tchoubar, Oleg / Kitegi, Charles
PS	PS	LDRD15-031	Inelastic X-Ray Scattering determination of the inter- and intra-particle dynamics of nanoparticle superlattices: key to the development of THz phononic crystals	Cunsolo, Alessandro
PS	PS	LDRD15-034	Searching and sorting haystacks	McSweeney, Sean
PS	PS	LDRD15-037	In-situ microscopy investigation of complex manganese oxides for energy storage	Chu, Yong