Project Title	Company Name	PI	Doe Laboratory	Cycle
Development of a modeling toolbox for CORC® cable performance evaluation	Advanced Conductor Technologies	Danko van der Laan	LBNL	2019b
Divertor Component Testing	Commonwealth Fusion Systems	Dan Brunner	ORNL	2019b
Superconducting Cable Quench Detection	Commonwealth Fusion Systems	Brandon Sorbom	BNL	2019b
Alpha Particle Diagnostics Simulation	Commonwealth Fusion Systems	Steve Scott	PPPL	2019b
Divertor Plasma Simulations	Commonwealth Fusion Systems	Dan Brunner	LLNL	2019b
Development of a High-Current Solid-State Switch for Magneto-Inertial Fusion	HelicitySpace [RESCINDED]	Setthivoine You	PPPL	2019b
Simulation of Plectoneme Formation	HelicitySpace	Setthivoine You	LANL	2019b
3D MHD Simulations Support for PJMIF	HyperJet Fusion Corporation	Franklin Witherspoon	LANL	2019b
Simulations of Global Stability in the C-2W Device	TAE Technologies, Inc	Sean Dettrick	PPPL	2019b
Doppler-Free Saturation Spectroscopy (DFSS) for Magnetic and Electric Field Measurements in an FRC	TAE Technologies, Inc.	Deepak Gupta	ORNL	2019b
Developing high harmonic fast wave (HHFW) as an enabling electron heating actuator for an FRC plasr	TAE Technologies, Inc.	Xiaokang Yang	PPPL	2019b
Baselining a Tritium Accountancy and Safety Case for a Molten Salt Liquid Immersion Fusion Blanket	Commonwealth Fusion Systems	Brandon Sorbom	INL	2020a
Development of phased-array HHFW antenna and load-resilient matching network for the C-2W FRC p	TAE Technologies, Inc.	Xiaokang Yang	ORNL	2020a
Low Temperature Testing of New Lower Cost Magnum-NX HTS Cable for Fusion	Solid Material Solutions	Alexander Otto	BNL	2020a
Conceptual design of a tritium pellet injector for the ST40 spherical tokamak	Tokamak Energy Inc	David Wilson	ORNL	2020a
SPARC 3D Field Physics and Support of the Non-Axisymmetric Coil Assessment	Commonwealth Fusion Systems	Alex Creely	PPPL	2020a
Advanced Manufacturing Workflows For Tokamak Internal Components	Commonwealth Fusion Systems	Brandon Sorbom	ORNL	2020a
Tungsten Engineered Feed Stock for PFCs	Gamma Alloys, Inc [RESCINDED]	Micah Peabody	ORNL	2020a
General Fusion - Advanced Stability Analysis for Magnetized Target Fusion	General Fusion Corp.	Aaron Frose	PPPL	2020a
Investigating microstability characteristics of next step tokamaks across a range of aspect ratios	Tokamak Energy, Inc	Steven McNamara	PPPL	2020a
Development of an RF Antenna to start-up and sustain a fusion plasma in a spherical tokamak	Tokamak Energy, Inc	Vladimir Shevchenko	ORNL	2020a
General Fusion – Ion Temperature Diagnostic Improvement	General Fusion Corp.	Akbar Rohollahi	ORNL	2020b
Time-Dependent Boundary Modeling to Inform Design of SPARC Diagnostic and Actuators	Commonwealth Fusion Systems	Alex Creely	ORNL	2020b
Magnetic Field Vector Measurements Using Doppler-Free Saturation Spectroscopy	Princeton Fusion Systems, LLC	Charles Swanson	ORNL	2020b
Measurement of Magnetic Field using Doppler-Free Saturation Spectroscopy (DFSS) in C-2W FRC plasr	TAE Technologies, Inc.	Deepak Gupta	ORNL	2020b
Innovative Joints for High-Temperature Superconducting Tapes	Renaissance Americas, Inc.	Francesco Volpe	BNL	2020b
Staged Z-pinch modeling with HYDRA and CHICAGO codes	Magneto Inertial Fusion Technologies, Inc.	Hafaz Raman	LLNL	2020b
Feasibility Study of High-Flux FRC Formation via Spheromak Merging for C-2W Experiments	TAE Technologies, Inc.	Hiroshi Gota	PPPL	2020b
XGC1 predictions of Scrape of Layer width in present and future high field spherical tokamaks	Tokamak Energy, Inc.	Michele Romanelli	PPPL	2020b
Characterization and Qualification of JK2LB Alloy for Additive Manufacturing of Fusion Components	Type One Energy Group, Inc.	Randall Volberg	ORNL	2020b
Fabrication and characterization of transition metal hydrides for radiation shielding in tokamak device	Tokamak Energy, Inc.	Thomas Davis	LANL	2020b
Performance Testing of Low-Resistance Demountable HTS Joints for Large Segmented Magnets	General Atomics	Zbigniew Piec	LBNL	2021a
Simulation of the Helicity Drive Magneto-Inertial Fusion Concept	HelicitySpace	Setthivoine You	LANL	2021a
Improving Plasma Control Capabilities in Magnetically-Confined Tokamak Systems with Transformer N	Microsoft Corp.	Alexey Svyatkovskiy	PPPL	2021a
Extending Operational Boundaries in the Advanced FRC	TAE Technologies, Inc	Sean Dettrick	PPPL	2021a
Phase Diagram of Li-LiH,D,(T) Mixtures and Implications for Tritium Retention and Extraction	Renaissance Americas Inc.	Francesco Volpe	SRNL	2021a
Informing Layout and Performance Requirements for SPARC Massive Gas Injection	Commonwealth Fusion Systems	Matthew Reinke	PPPL	2021a
Active Redox Control of Molten Salts For Fusion Blankets	Commonwealth Fusion Systems	Brandon Sorbom	SRNL	2021a
X-ray Diagnostic for C-2W FRC Plasma	TAE Technologies, Inc.	Deepak Gupta	LANL	2021a
Neutron Ion Handshake for Fusion Materials	Commonwealth Fusion Systems	Brandon Sorbom	SNL	2021b
Magnetic Pumps for Molten Salt Fusion Devices	Commonwealth Fusion Systems	Brandon Sorbom	ORNL	2021b
High Heat Flux Exposure of PFC Candidate Fine-Grain Dispersion-Strengthened Tungsten Materials	Energy Driven Technologies LLC.	Zachariah Koyn	ORNL	2021b
Mechanical Characterization of PFC Candidate Fine-Grain Dispersion-Strengthened Tungsten Material	Energy Driven Technologies LLC.	Zachariah Koyn	ORNL	2021b
In-Field Performance Testing of a Novel HTS CICC for Practical and Cost-Effective Fusion Magnet Syste	General Atomics	Zbigniew Piec	BNL	2021b
Thermonuclear fusion verification of Staged Z-pinch fusion on a 0.5 MA LTD pulsed power generator	Magneto-Inertial Fusion Technologies, Inc. (	Emil Ruskov	LLNL	2021b
Artificially intelligent optimization of alpha particle transport in stellarators	Renaissance Americas Inc.	Christopher Smiet	PPPL	2021b
Extension of MCNP® Mesh Based Weight Windows to Support Unstructured Mesh Topologies	Silver-Fir Software, Inc.	Eugeny Sosnovsky	LANL	2021b