

# Cumulative Awards List 2019-2021a

1	Project Title	Company Name	PI	Doe Laboratory	Cycle
2	Development of a modeling toolbox for CORC® cable performance evaluation	Advanced Conductor Technologies	Danko van der Laan	BNL	2019b
3	Divertor Component Testing	Commonwealth Fusion Systems	Dan Brunner	ORNL	2019b
4	Superconducting Cable Quench Detection	Commonwealth Fusion Systems	Brandon Sorbom	BNL	2019b
5	Alpha Particle Diagnostics Simulation	Commonwealth Fusion Systems	Steve Scott	PPPL	2019b
6	Divertor Plasma Simulations	Commonwealth Fusion Systems	Dan Brunner	LLNL	2019b
7	Development of a High-Current Solid-State Switch for Magneto-Inertial Fusion	HelicitySpace	Setthivoine You	PPPL	2019b
8	Simulation of Plectoneme Formation	HelicitySpace	Setthivoine You	LANL	2019b
9	3D MHD Simulations Support for PJMIF	HyperJet Fusion Corporation	Franklin Witherspoon	LANL	2019b
10	Simulations of Global Stability in the C-2W Device	TAE Technologies, Inc	Sean Dettrick	PPPL	2019b
11	Doppler-Free Saturation Spectroscopy (DFSS) for Magnetic and Electric Field Measurements	TAE Technologies, Inc.	Deepak Gupta	ORNL	2019b
12	Developing high harmonic fast wave (HHFW) as an enabling electron heating actuator for an	TAE Technologies, Inc.	Xiaokang Yang	PPPL	2019b
13	Baselining a Tritium Accountancy and Safety Case for a Molten Salt Liquid Immersion Fusion	Commonwealth Fusion Systems	Brandon Sorbom	INL	2020a
14	Development of phased-array HHFW antenna and load-resilient matching network for the C	TAE Technologies, Inc.	Xiaokang Yang	ORNL	2020a
15	Low Temperature Testing of New Lower Cost Magnum-NX HTS Cable for Fusion	Solid Material Solutions	Alexander Otto	BNL	2020a
16	Conceptual design of a tritium pellet injector for the ST40 spherical tokamak	Tokamak Energy Inc	David Wilson	ORNL	2020a
17	SPARC 3D Field Physics and Support of the Non-Axisymmetric Coil Assessment	Commonwealth Fusion Systems	Alex Creely	PPPL	2020a
18	Advanced Manufacturing Workflows For Tokamak Internal Components	Commonwealth Fusion Systems	Brandon Sorbom	ORNL	2020a
19	Tungsten Engineered Feed Stock for PFCs	Gamma Alloys, Inc	Micah Peabody	ORNL	2020a
20	General Fusion - Advanced Stability Analysis for Magnetized Target Fusion	General Fusion Corp.	Aaron Frose	PPPL	2020a
21	Investigating microstability characteristics of next step tokamaks across a range of aspect rat	Tokamak Energy, Inc	Steven McNamara	PPPL	2020a
22	Development of an RF Antenna to start-up and sustain a fusion plasma in a spherical tokama	Tokamak Energy, Inc	Vladimir Shevchenko	ORNL	2020a
23	General Fusion – Ion Temperature Diagnostic Improvement	General Fusion Corp.	Akbar Rohollahi	ORNL	2020b
24	Time-Dependent Boundary Modeling to Inform Design of SPARC Diagnostic and Actuators	Commonwealth Fusion Systems	Alex Creely	ORNL	2020b
25	Magnetic Field Vector Measurements Using Doppler-Free Saturation Spectroscopy	Princeton Fusion Systems, LLC	Charles Swanson	ORNL	2020b
26	Measurement of Magnetic Field using Doppler-Free Saturation Spectroscopy (DFSS) in C-2W	TAE Technologies, Inc.	Deepak Gupta	ORNL	2020b
27	Innovative Joints for High-Temperature Superconducting Tapes	Renaissance Americas, Inc.	Francesco Volpe	BNL	2020b
28	Staged Z-pinch modeling with HYDRA and CHICAGO codes	Magneto Inertial Fusion Technologies, I	Hafaz Raman	LLNL	2020b
29	Feasibility Study of High-Flux FRC Formation via Spheromak Merging for C-2W Experiments	TAE Technologies, Inc.	Hiroshi Gota	PPPL	2020b
30	XGC1 predictions of Scrape of Layer width in present and future high field spherical tokamak	Tokamak Energy, Inc.	Michele Romanelli	PPPL	2020b
31	Characterization and Qualification of JK2LB Alloy for Additive Manufacturing of Fusion Comp	Type One Energy Group, Inc.	Randall Volberg	ORNL	2020b
32	Fabrication and characterization of transition metal hydrides for radiation shielding in token	Tokamak Energy, Inc.	Thomas Davis	LANL	2020b
33	Performance Testing of Low-Resistance Demountable HTS Joints for Large Segmented Magn	General Atomics	Zbigniew Piec	BNL	2021a
34	Simulation of the Helicity Drive Magneto-Inertial Fusion Concept	HelicitySpace	Setthivoine You	LANL	2021a
35	Improving Plasma Control Capabilities in Magnetically-Confined Tokamak Systems with Tran	Microsoft Corp.	Alexey Svyatkovskiy	PPPL	2021a
36	Extending Operational Boundaries in the Advanced FRC	TAE Technologies, Inc	Sean Dettrick	PPPL	2021a
37	Phase Diagram of Li-LiH,D,(T) Mixtures and Implications for Tritium Retention and Extractio	Renaissance Americas Inc.	Francesco Volpe	SRNL	2021a
38	Informing Layout and Performance Requirements for SPARC Massive Gas Injection	Commonwealth Fusion Systems	Matthew Reinke	PPPL	2021a
39	Active Redox Control of Molten Salts For Fusion Blankets	Commonwealth Fusion Systems	Brandon Sorbom	SRNL	2021a
40	X-ray Diagnostic for C-2W FRC Plasma	TAE Technologies, Inc.	Deepak Gupta	LANL	2021a