Applied Cathode Enhancement and Robustness Technologies (ACERT)

Team

Our project team, a part of Los Alamos National Laboratory (LANL) comprised of world leading experts from fields of accelerator design & testing, chemical synthesis of nanomaterials (quantum dots), and shielding application of nanomaterials (graphene and other atomically-thin sheets).

Our goal is to develop and demonstrate ‘designer’ cold cathode electron sources with tunable parameters (bandgap, efficiency, optical absorption) that outperform present technologies by an order of magnitude in terms of efficiency and lifetime, where success in either of these metrics is considered transformational.

Research

Project Members

News

Publications

Presentations

Patent

Operated by Los Alamos National Security, LLC for the Department of Energy’s NNSA