

Biographical Sketch

Dr. Curry joined Sandia National Laboratories as a Distinguished member of the technical Staff in 2021. As a DMTS he joined the ECSD Scorpius team, the next generation accelerator program being developed by LANL, LLNL, and SNL. He has since transitioned to leading teams involved in the development of high pressure gas switches and development of advanced materials and technology for magnetically insulated transmission lines that could potentially reduce losses.

Dr. Curry joined the faculty at the University of Missouri-Columbia (MU) in 1995 (1995 (Assistant Professor)-2021 (Distinguished Professor)) after years in private industry. Dr. Curry has directed interdisciplinary teams of engineers, physicists, chemists, technicians, microbiologists for advanced research and development applications. The applications include atmospheric plasma applications, advanced material development for antennas and compact energy storage, compact pulsed power systems, directed energy applications, counter IED applications, counter terrorism applications, soil coupling models, and a new generation of laser triggered switches. The applications also included electrostatic decontamination, long lifetime, self confining atmospheric toroidal plasmas, new nanodielectrics, biomedical applications of materials and lasers, pulsed power disinfection processes for surfaces and decontamination, food and environmental cleanup, high pressure flowing dielectric switches for Directed Energy applications and compact pulse power systems for megawatt UV sources. His team was also involved in new applications of nanotechnology for pulsed power systems, as well as new applications of these technologies for the biomedical field.

Dr. Curry was the chair of the 2011 Pulsed power Conference and the technical chair of the 2009 IEEE Pulsed Power Conference. He was also the Chair of the 2023 IEEE Workshop on Pulsed Power for Fusion held at the 2023 Pulsed power conference. He has authored over 151 articles and holds 20 patents.