

Abstract Submitted
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Optimization of Electrode Geometry DAVID MULLINS, Univ of Kentucky — Electric fields are often required for low energy neutron experiments, either for sensitivity to the electric dipole moment, or to accelerate low energy protons for detection in neutron decay experiments. In order to attain the highest fields, special care must be taken in the design of the electrodes to prevent arcing that could damage the equipment and halt the experiment. In this project, I use the finite element analysis software COMSOL to optimize the geometry of cylindrical high voltage electrodes providing a uniform electric field in experiments to measure the electric dipole moment of the neutron.

David Mullins
Univ of Kentucky

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