

# UW IEC Group 2011: Continuing Preparations for 300 kV Operation -- Device Switching

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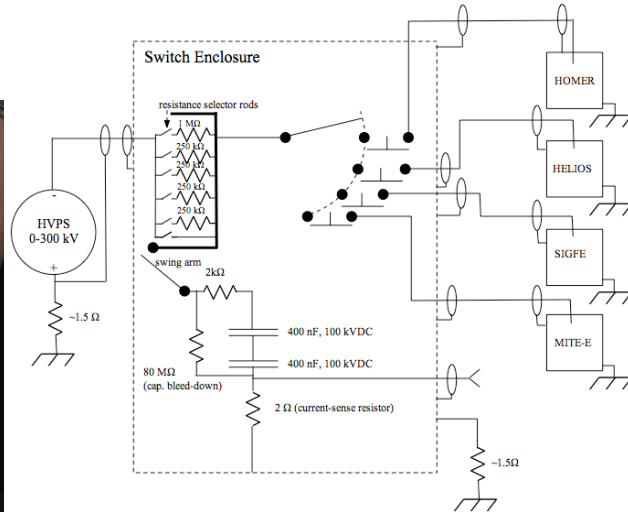
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The University of Wisconsin IEC Laboratory continues to employ 3 IEC devices (HOMER, HELIOS, and SIGFE) and a materials-irradiation device (MITE-E) in its work relating to the operation, understanding, and near- and long-term applications of IEC devices. Graduate students conducting experimental research, in very close coöperation with theorists and other senior researchers, on a broad range of topics [1] continue to expand our understanding of the physics of these devices.

Continuing efforts to prepare laboratory experiments to run at 300 kV are described. Particular emphasis is placed on the design, construction, and present "trouble-shooting" of a switch that will allow a single 300 kV DC power supply to be shared among four different experiments, and allow a simple and quick changing to pulse-mode operation.



Photo showing current HV cable (right) and new HV cable (left)



Schematic diagram showing relationship between power supply, devices, and switch

[1] See presentations by Alderson, Becerra, Michalak, Kulcinski, Santarius, and Emmert at this conference