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Effects of Ionizing Radiation on Capacitors HAROLD P. HJALMARSON, RUDOLPH J. MAGYAR, PAUL S. CROZIER, E. FREDERICK HARTMAN, Sandia National Laboratories, Albuquerque, NM — Irradiation of an insulator by energetic ionizing radiation creates hot electrons and holes. These species cool by creating additional hot electrons and holes. In this presentation, the consequences of these hot carriers will be computed using a continuum transport method in which the carriers are assumed to be described by a quasi-equilibrium temperature much larger than the lattice temperature. The electrical effects of carrier recombination at defects for simple capacitors under irradiation will be described. Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin company, for the United States Department of Energy under contract DE-AC04-94AL85000.

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