

# ELECTROMAGNETIC DISSOCIATION OF RELATIVISTIC HEAVY IONS

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## S u m m a r y

Electromagnetic Dissociation (ED) occurs in collisions of relativistic heavy ions where the impact parameter is larger than the interaction radius. In ED collisions, absorption of a virtual photon generally leads to the excitation of a nuclear giant resonance. The NA53 experiment studies ED by bombardment of Au targets with 40 and 158 GeV/nucleon  $^{208}\text{Pb}$  projectiles from the CERN-SPS accelerator. Preliminary  $\sigma_{\text{ED}}$  results for the one- and two-neutron removal processes are reported for 158 GeV/nucleon beams. Theoretical predictions for  $\sigma_{\text{ED}}$  including the effects of both E1 and E2 giant resonances were calculated and extended to energies for heavy ion collisions at the RHIC and LHC colliders.