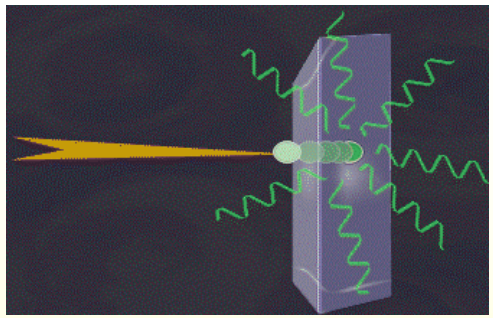
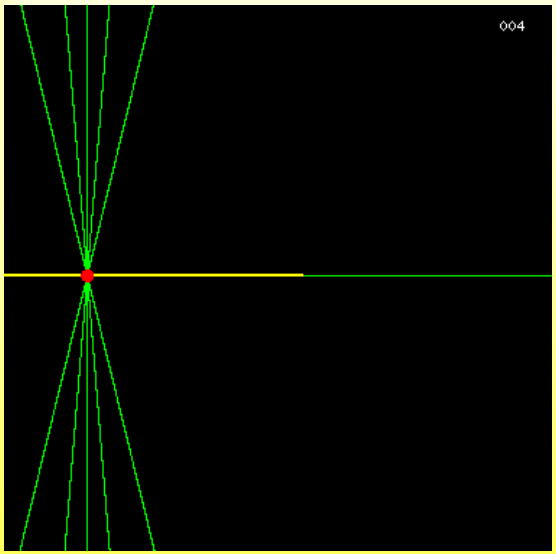
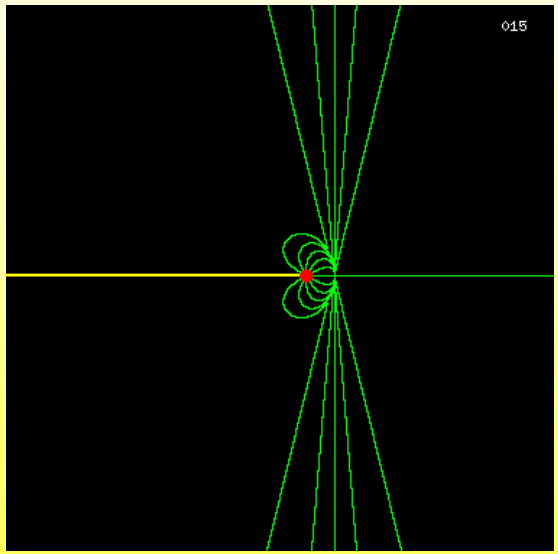
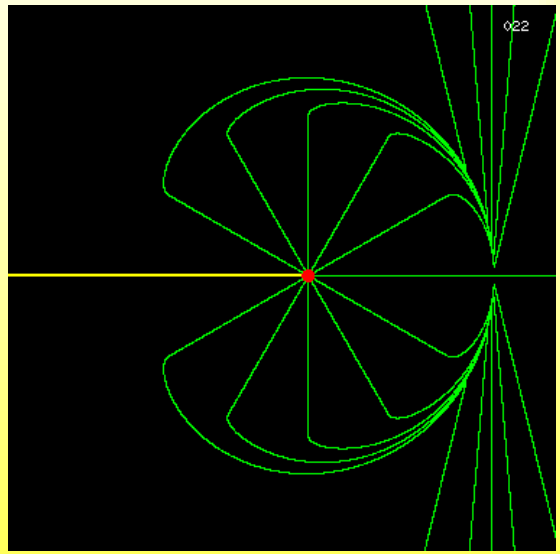
Bremsstrahlung



slowing down of a
moving point-charge







electric field lines (v/c=0.99)

Atomic Background Radiation

- Radiative electron capture (REC)

capture of target electrons into bound states of the projectile:

$$\sigma \sim Z_p^2 \cdot Z_t$$

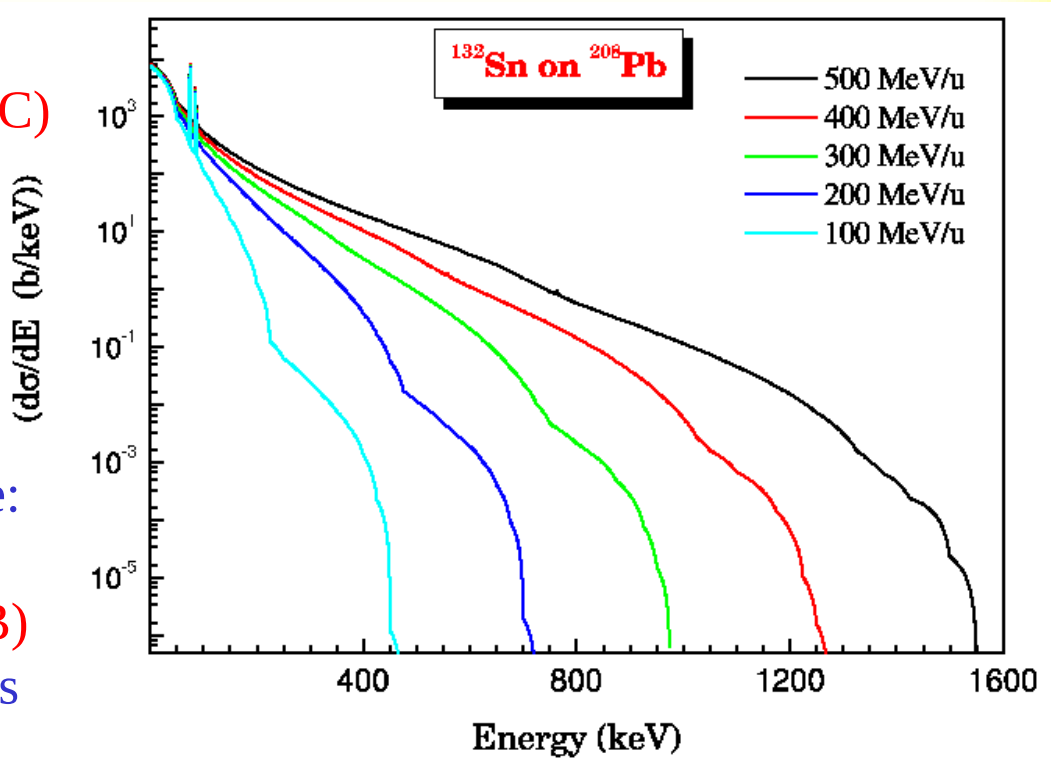
- Primary Bremsstrahlung (PB)

capture of target electrons into continuum states of the projectile:

$$\sigma \sim Z_p^2 \cdot Z_t$$

- Secondary Bremsstrahlung (SB)

Stopping of high energy electrons in the target: $\sigma \sim Z_p^2 \cdot Z_t^2$



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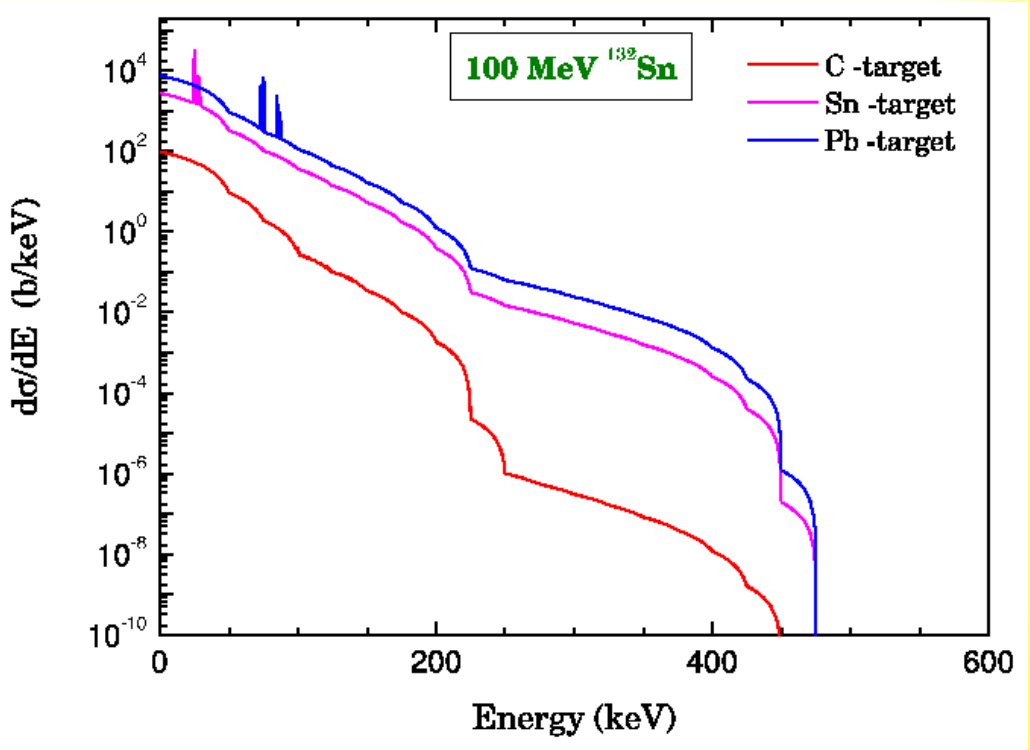

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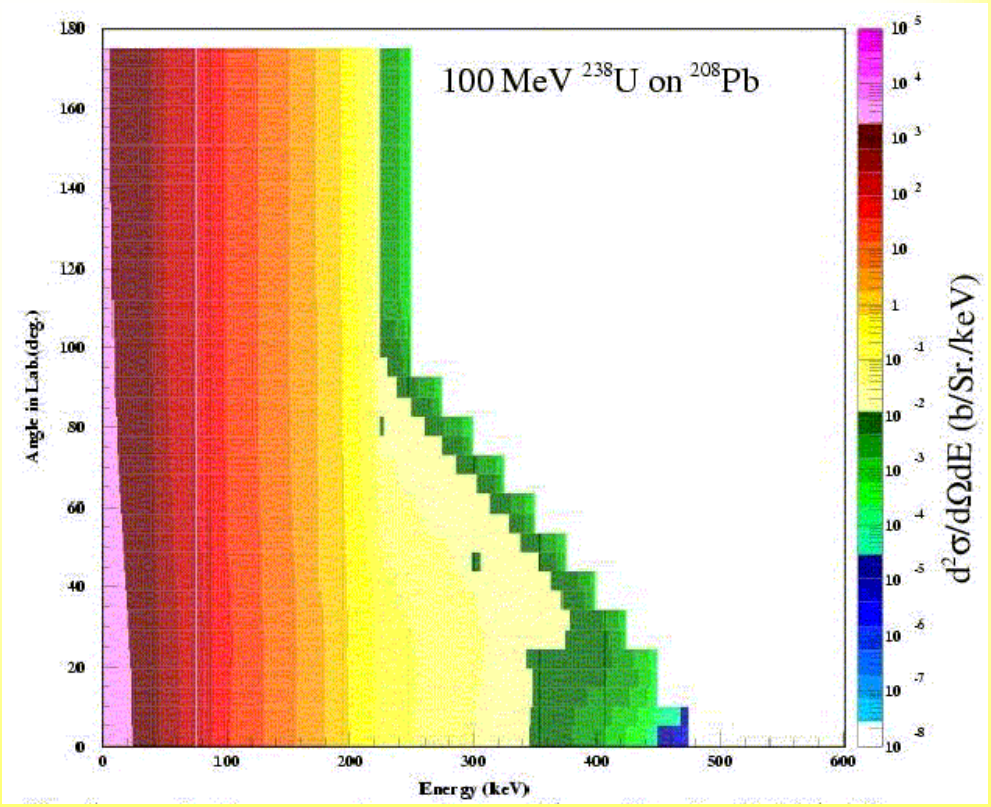

- large cross sections
- angular distribution
  - forwar boosted with projectile energy