Production yield of unstable isotopes from projectile fragmentation of ⁴⁰Ca and ⁴⁸Ca



Number of protons

Projectile fragmentation is used extensively to produce rare isotopes at NSCL and at RIA. Understanding the physics behind rare isotope production using n-rich beams is important in the operation of NSCL and RIA.

For example, the 8 extra neutrons in ⁴⁸Ca produce nearly twice as many isotopes, most of which are n-rich.

Number of neutrons