

X-ray burst reaction studies with the JENSA gas-jet target

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Type I X-ray bursts take place on the surface of a neutron star accreting material from a binary companion. Important nuclear processes powering the X-ray burst are the triple- α reaction, the α p- and the rp-process. The Jet Experiments in Nuclear Structure and Astrophysics (JENSA) gas-jet target enables the direct measurement of previously inaccessible reactions with radioactive beams provided by the rare isotope re-accelerator ReA3 at the National Superconducting Cyclotron Laboratory (NSCL), USA. JENSA is going to be the main target for the Recoil Separator for Capture Reactions (SECAR) at the Facility for Rare Isotope Beams (FRIB).