

DIANA - An Underground Accelerator Facility for Nuclear Astrophysics Status Report

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The DIANA (Duel Ion Accelerators for Nuclear Astrophysics) project represents a next generation accelerator facility for low-energy nuclear astrophysics, in a deep underground environment. The proposed location outline for the facility is the 4850 ft level of SURF (Sanford Underground Research Facility) in Lead, South Dakota. The ability to probe reactions of astrophysical interest in relevant stellar energy regimes, is often hampered by small cross-sections and comparatively large background rates. DIANA aims to address these challenges by both operating in an underground environment to lower background rates, but also increase beam intensities to allow for the steep drop off in cross-section. This talk will present current updates and status of the project.

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