CASPAR and DIANA: Recent and Future Underground Nuclear Astrophysics Results

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The broad field of Nuclear Astrophysics considers a wide range of stellar burning processes and nuclear interactions all feeding into the chemical evolution of our Universe. In order to probe such a diverse range of nuclear processes, a complementary set of experimental and theoretical tools must be developed. The profound difficulty in measuring low-energy reactions in the stellar burning regime highlights the need for the development of such techniques. Ongoing advancements consider higher intensity accelerators, more robust and isotopically enriched target material and lower background interference, to name a few. Underground Nuclear Astrophysics facilities such as CASPAR, utilize natural background suppression to extend current experimental data to the lower energies required. New facilities around the world are coming on-line with a view to capitalizing on underground cosmic-ray suppression, each offering unique techniques and capabilities. This talk will highlight recent and future CASPAR campaigns incorporting above and below ground measurements of reactions including ^{14}N(p,γ), ^{11}B(α,n), ^{22}Ne(α,n) and ^{22}Ne(α,γ).