

# NEW SIMULATIONS OF NEUTRON CAPTURES IN-BETWEEN THE S AND THE R PROCESS

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Neutron-capture processes with neutron densities in-between the slow (s) and the rapid (r) neutron-capture process are becoming relevant to describe a number of stellar conditions that may occur in AGB and post-AGB stars, from proton ingestion episodes (the i process) to degenerate thermal pulses. These are needed to address a number of observational constraints, from carbon-enhanced metal-poor (CEMP)-s/r stars to the composition of unusual stardust grains. We are testing the modelling of such processes using an extended r-process network code. Here, we present our first results of elemental and isotopic ratios which can be compared to existing simulations and to explore if they would provide a possible solution for CEMP-s/r stars.