PRODUCTION OF 146SM AND 92NB IN THE g-PROCESS

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To know the production of ^{92}Nb and ^{146}Sm in the photodisintegration processes of the ◎-process is essential for interpreting abundances in meteoritic material and for Galactic Chemical Evolution, also constraining possible contributions of further explosive nucleosynthesis processes to proton-rich, stable nuclei. We compare results for several models of core-collapse (ccSN) and type Ia supernovae (SNIa). It is found that ^{146}Sm production compatible with observations can be achieved only in SNIa, even when trying different predictions of the ^{146}Sm(◎,◎) reaction rate. In SNIa, the use of a ^{146}Sm(◎,◎) reaction rate prediction is required which assumes an additional, previously neglected reaction channel at low energy, contrary to earlier studies focussing on modifications of the ◎-potential (and thus on the total reaction cross section) alone. Regarding ^{92}Nb, the difference in reaction paths in various ccSN and SNIa models is discussed and Monte Carlo studies in the PizBuin framework to quantify the impact of reaction rate uncertainties are shown. The impact on ^{92}Nb production and on the possibility to constrain contributions of further proton-rich explosive nucleosynthesis processes (such as rp- and ◎p-processes) to the light p-nuclei is presented.