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New results on AGB stars and meteoritic data

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We run *slow* neutron-capture process (*s* process) nucleosynthesis calculations with the *Monash* post-processing code for seven stellar structure evolution models of low-mass asymptotic giant branch (AGB) stars with new sets of nuclear input. We present our new nucleosynthesis predictions of a selection of isotopic ratios and compare them to the corresponding ratios measured in presolar stardust grains from AGB stars. Our new models quantitatively reproduce the minor *s*-process production of the classical p-only ^{94}Mo observed in stardust silicon carbide (SiC) grains (around 3-4%) and match the ^{64}Ni/^{58}Ni values from the SiC grain data. The predictions for the He intershell ratios of ^{80}Kr/^{82}Kr and surface ratios of ^{137}Ba/^{136}Ba ratios are better fitted to SiC grains than for the previous *Monash* models. The ^{186}W produced by our new models still does not match the tungsten isotopic composition of large SiC stardust grains but does match the tungsten composition observed in other types of meteoritic materials well.

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