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The effects of induced magnetic mixing in AGB stars.

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Asymptotic giant branch (AGB) stars synthesize half of the elements heavier than iron through the slow neutron capture process.
Despite the significant progresses in theory over the last few decades, many uncertainties still affect AGB models. The most notable example
is the mechanism responsible for the formation of the main neutron source in AGB stars, the so called 13C pocket.
Stringent constraints on the type and efficiency of mixing processes relevant to the s-process nucleosynthesis in AGB stars are provided by isotopic ratios in presolar grains, as well as from the latest spectroscopic observations of both intrinsic and extrinsic AGB stars.
We present recent results from AGB stellar models including the effects of mixing induced by magnetic fields. The comparison to extant observations suggests that magnetic instabilities may be at the origin of the 13C pocket in AGB stars, triggering future research aiming at better describing the physics governing these stars.

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