

PRESOLAR GRAPHITE GRAINS AND THEIR STELLAR ORIGINS

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Presolar grains are pieces of stardust that are found in primitive meteorites and interplanetary dust particles. Laboratory studies of presolar grains provide an unparalleled opportunity to understand nucleosynthesis processes and circumstellar condensation conditions in parent stars.

This talk will present an overview of the different presolar grain species and recent results from microanalytical analyses of these grains. In particular, presolar graphite grains and their stellar sources will be discussed. Results from multi-element isotopic studies of graphite grains will be presented and compared to nucleosynthesis models of supernovae, AGB, and post-AGB stars.