

## EXPLORATION OF STELLAR PROCESSES THROUGH INTERSTELLAR ABUNDANCE STUDIES

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Interstellar abundances studies can provide answers to some questions about stellar processes, and they can lead to new questions about others. We will discuss some recent interstellar abundance determinations and their implications for stellar studies.

Although Cd and Sn are chemically similar to elements which are moderately to heavily depleted from the gas-phase interstellar medium (ISM), they appear to have solar-like abundances in interstellar clouds. This is likely the result of these elements being depleted from an ISM which has been enriched with Cd and Sn since the formation of the sun. These two elements are mainly produced by s-process neutron capture in intermediate to low mass AGB stars. The present ISM abundances of Cd and Sn can therefore provide information about s-process yields and the cumulative injection of this material into the ISM over the past 4.5 Gy.

Recent studies of C and O abundances in the ISM have shown that the C/H and O/H are constant out to approximately 1500pc from the sun. Local B star abundance studies, however, find that C/O is not constant, thereby indicating that the ISM is not well mixed or homogeneous. We currently do not have an explanation for this apparent inconsistency between stars and the ISM.