

# **Nuclear Physics Solutions to the Primordial Lithium Problem**

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The primordial lithium problem is one of the major outstanding issues in the standard model of the big bang. Measurements of the baryon to photon ratio in the cosmic microwave background indicate abundances of  ${}^7\text{Li}$  two to four times larger than what is observed via spectroscopic measurements of metal-poor stars. In an attempt to reconcile this discrepancy, significant effort has been directed at measuring reaction cross sections of light nuclei at astrophysically relevant energies. However, there remain reaction cross sections with large uncertainties, and some that have not yet been measured. Particularly relevant are those involving the destruction of  ${}^7\text{Be}$ , the progenitor of  ${}^7\text{Li}$ . Key issues that can be improved by nuclear physics input will be highlighted, and the applicability of detectors and event reconstruction techniques recently developed at the ANU will be discussed.