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### **The Nucleosynthesis of Proton-Rich Isotopes**

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The proton-rich side of the valley of stability hosts a variety of astrophysical processes, powering thermonuclear explosions and contributing to cosmic nucleosynthesis. Understanding these processes is key to answering fundamental questions about our universe, such as "where were the elements made?" and "how does matter behave at ultra high densities?". I will briefly review the status of nuclear astrophysics involving proton-rich nuclides, focusing on proton-rich nucleosynthesis involving neutron star formation and accreting neutron star systems.