

Nuclei in the Cosmos (NIC XVII)



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Big Bang Nucleosynthesis in the Extended Starobinsky Model and Early Universe Chemistry

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Our study links cosmic evolutions in the extended Starobinsky model (eSM), Big Bang Nucleosynthesis (BBN), and early universe chemistry. We demonstrate standard and oscillating cosmic evolutions and discuss BBN constraints. By connecting BBN abundances to the early universe chemistry, we identify the formation of intriguing and critical molecular structures. These findings underscore the pivotal role that early universe chemistry plays in shaping our understanding of cosmological phenomena.

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