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## **R-process Nucleosynthesis in the Long-Term Simulation of Magnetically Dominated Core-Collapse Supernovae**

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We investigate r-process nucleosynthesis during magneto-hydrodynamic supernova explosions driven by rapid rotations and strong magnetic fields. These types of supernovae are very important not only for magnetar formation sites, but also for astronomical r-process sites in astrophysics. Our r-process nucleosynthesis simulations are based on the astronomical supernova explosion models, which follow the long-term evolution in special relativistic magneto-hydrodynamic simulations. We perform an r-process nucleosynthesis simulation for magneto-hydrodynamic jet supernova models based on a large nuclear reaction network including fully nuclear reactions. In our results, we find that a jet-like supernova explosion model with strong magnetic field can occur successful r-process nucleosynthesis.

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