



Radioactive nuclei from cosmochronology to habitability (No 1650)

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🔗 Monday Plenary

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The analysis of meteorites shows that radioactive nuclei with half-lives or the order of millions of years were present at the birth of the Sun. By comparing the meteoritic data to predictions for radioactive nuclei heavier than iron in the Milky Way we are building a time line for the events that predated the birth of the Sun. The final aim is to identify the type of the stellar nursery where the Sun was born and understand the still mysterious origin of the crucial radioactive nucleus aluminium-26. The heat generated by the decay of this nucleus in the first few million years of the life of Solar System affected the thermo-mechanical and chemical evolution of planetesimals and the delivery of water to the Earth, however, we still do not know if its presence in proto-planetary disks is normal or special.