

Low Radioactivity Techniques (LRT2024)



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Cosmogenic activation backgrounds

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Long-lived radioactive isotopes produced by cosmogenic activation are a major source of background for rare event searches such as dark matter and neutrinoless double beta decay. Understanding the production rates of these cosmogenic isotopes is extremely important for calculating accurate radioactive background models and for determining the total allowable surface residence time of detector materials during fabrication, storage, and transportation. In this talk I will review the key components needed to evaluate the expected activation rates and present recent efforts to measure and mitigate cosmogenic activation of common detector materials.

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