## Abstract Submitted for the DNP20 Meeting of The American Physical Society

Harvesting Rare Isotopes for Accelerator Target Preparation<sup>1</sup> JOHN GREENE, MATTHEW GOTT, BENJAMIN KAY, Argonne National Laboratory, GREGORY SEVERIN, Michigan State University — The use of accelerator targets in nuclear physics experiments relies heavily on the availability of highly enriched isotope for their successful preparation; normally employing stable compounds as these can be widely supplied. For the more difficult experiments requiring studies far from stability, radioactive beams have been exploited, provided by newly planned as well as existing facilities. In the realm of super-heavy element production, targets of the sometimes rare actinide species are necessary, these being available in only small quantities. For major new experimental initiatives, the limits of what reactions are accessible are increasingly relying on the availability of radioactive targets. These can be prepared from long-lived species where enough starting material can be produced. However, under the auspices of isotope harvesting at FRIB enough target material, even with short half-lives, may be produced in amounts which could be separated and fashioned into accelerator targets for further experiments. Some examples with be presented.

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John Greene Argonne National Laboratory

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