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## Plan Overview

*A Data Management Plan created using DMPTool*

**Title:** Complete Information on Nuclear Reaction Mechanism for Nuclear Applications

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### Copyright information:

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# Complete Information on Nuclear Reaction Mechanism for Nuclear Applications

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## Data types and sources

The sections in the template outline are based on Suggested Elements of a DMP (see Links tab) provided by DOE, but DMPs are not required to follow this template. For the data types and sources suggested element, a brief, high-level description of the data to be generated or used through the course of the proposed research and which of these are considered digital research data necessary to validate the research findings may be included.

The data generated in the course of the proposed research will be

1. first saved in multiple copies, on internal NSF space and external hard drive backups
2. shared with the collaboration and in public
3. available with two types of data sets; (a) raw data and (b) processed data with the data reply code
4. following the requirements of preserving the initial raw data set (a) to be easily converted to the processed data (b) via applying the data reply code, which is provided in the step 3.
5. provided digitally for the data and the data taking log, through an electronic logbook website.

## Content and format

A statement of plans for data and metadata content and format including, where applicable, a description of documentation plans, annotation of relevant software, and the rationale for the selection of appropriate standards. (Existing, accepted community standards should be used where possible. Where community standards are missing or inadequate, the DMP could propose alternate strategies that facilitate sharing, and should advise the sponsoring program of any need to develop or generalize standards.)

Data content and format will be binary data format from the experiment and will be stored to the local data cluster space.

## Sharing and preservation

A description of the plans for data sharing and preservation.

At the time of publication, the data will be digitally accessible through the US National Nuclear Data Center repository ([www.nndc.bnl.gov](http://www.nndc.bnl.gov)), which includes charts, figures, and any plots.

## Protection

A statement of plans, where appropriate and necessary, to protect confidentiality, personal privacy, Personally Identifiable Information, and U.S. national, homeland, and economic security; recognize proprietary interests, business confidential information, and intellectual property rights; and avoid significant negative impact on innovation, and U.S. competitiveness.

The data will not include any personally identifiable information and national security, and will recognize proprietary interests, business confidential information and intellectual property through multiple reviews in collaboration and institutionally.

## Rationale

A discussion of the rationale or justification for the proposed data management plan including, for example, the potential impact of the data within the immediate field and in other fields, and any broader societal impact.

The data management plan for this proposed research is to preserve the data to be available to the collaboration and for public for the benefit of the availability of the rare data set, since the LANSCE facility and the LENZ detector combination provides a unique capability to produce this high quality data.

## Software & Codes

Both the Advanced Scientific Computing Research and Fusion Energy Sciences program areas address software and codes. Program specifics are listed below.

Throughout the research, I will produce the data replay codes, written in C++ and python, which are all Open Source License to be used. The data replay codes will be available with the raw data to the community.