

I DID SOMETHING COOL AT CERN - ISOLDE

by

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THESIS

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Abstract

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Collaboration details

The sorting and analysis code used in this thesis has been developed at CERN-ISOLDE and can be found at <https://github.com/Miniball/MiniballCoulexSort>
Other code/scripts have been written by the author. C++ / Python.

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Chapter 1

Introduction

Test [1]

The experiment has been done before, with lower energy (and another target),
Malin Klintefjord.

Chapter 2

Theory?

Chapter 3

Coulomb excitation experiment

3.1 ISOLDE

3.1.1 Miniball

3.1.2 DSSSD

3.2 Experimental setup

^{140}Sm Coulomb excitation experiment.

Chapter 4

Data analysis

4.1 Calibration

4.1.1 Particle detector

DSSSD: Double-Sided Silicon Strip Detector \Rightarrow CD

4.1.2 Gamma detectors

4.2 Doppler correction

Chapter 5

Experimental results

Chapter 6

Discussion

Chapter 7

Summary and outlook

Appendices

Appendix A

Some Appendix

Appendix B

Some other appendix...

Bibliography

- [1] E. Clément, M. Zielińska, A. Gorgen, et al. Spectroscopic Quadrupole Moments in Sr 96,98: Evidence for Shape Coexistence in Neutron-Rich Strontium Isotopes at N=60. *Physical Review Letters*, 116(2):1–6, 2016. ISSN 10797114. doi: 10.1103/PhysRevLett.116.022701.