



LAWRENCE
LIVERMORE
NATIONAL
LABORATORY

LLNL-TR-822665

Magnetic Microcalorimeter Gamma Detectors with Ultra-High Energy Resolution (FY21 Q2 Report)

S. Friedrich

May 18, 2021

Disclaimer

This document was prepared as an account of work sponsored by an agency of the United States government. Neither the United States government nor Lawrence Livermore National Security, LLC, nor any of their employees makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States government or Lawrence Livermore National Security, LLC. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States government or Lawrence Livermore National Security, LLC, and shall not be used for advertising or product endorsement purposes.

This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

Quarterly Progress Report: Q2 FY21 – January to March 201

Project: MagMicro with Ultra-High Energy Resolution

Project Number: LL16-MagMicro-PD2La

Principal Investigator: Stephan Friedrich, LLNL (925) 423-1527

HQ Project Manager: Chris Ramos

Date submitted: 10 April 2021

Progress this quarter

All technical work has been completed, and the required reports have been submitted. We are no working on closing out the project.

Outlook

For a follow-up project, we are currently funded by NA-241 to build a decay energy spectrometer based on the MMC technology developed in this LCP. The IAEA is specifically interested in accurate isotope analysis of small particles that decay energy (Q) spectroscopy is well-suited for. We have established an SP-1 collaboration with the IAEA that is expected to continue beyond FY20.

Publications

Lab Program Manager Comments [optional]: