MLZ User Meeting 2021



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LIMPID - Layer-wise Investigation of Measurements on Positron Implantation and Diffusion

Tuesday 7 December 2021 09:55 (25 minutes)

We developed a new analysis tool for positron depth profiles generated by variable energy Doppler-broadening spectroscopy. It allows users to extract positron diffusion lengths by fits to the S parameter measured as a function of implantation energy. The code written in Python is easily accessible and adaptable. In this talk we present the theoretical background of the algorithm implemented, which includes a solution of the time-independent positron diffusion equation. We demonstrate all currently available features and present possible application cases. Furthermore we discuss the performance of the code and compare it to VEPFIT, the current, albeit outdated, standard software.

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