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## EXCITATION FUNCTIONS FOR THE PRODUCTION OF 10-BE, 26-AL, 129-I AND 36-CL IN THE REACTION $^{nat}\text{Pb}(p,xn/yp)Z$ WITH PROTON ENERGIES UP TO 2.6 GEV

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The design of accelerator driven system devices requires an accurate knowledge of the residue nuclei production within the spallation target. The long-term waste storage management has to consider long-lived isotopes which did not play an important part in the past but will, probably, contribute to the overall dose in waste containments of the future. Nuclides like 10-Be, 26-Al, 36-Cl and 129-I are difficult to determine due to their nuclear properties. The quantitative measurements are carried out by accelerator mass spectrometry, a very sensitive but also time consuming method. Special chemical treatment of the irradiated targets is necessary to get the sample form required for the AMS measurement. Chemical separation procedures were developed which allow to isolate the iodine, chlorine, aluminium and beryllium fractions from the lead matrix. The cross sections of the four nuclides were determined, their excitation functions were calculated and compared with theoretical predictions. The work described here is part of the HINDAS collaboration.