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 β -decay studies of nuclides in the ¹⁰⁰Sn region at NSCL¹ GIUSEPPE LORUSSO, ALAN AMTHOR, MSU, THOMAS BAUMANN, DANIEL BAZIN, NSCL, ANA BECERRIL, MSU, HEATHER CRAWFORD, NSCL, AL-FREDO ESTRADE, MSU, ALEXANDRA GADE, THOMAS GINTER, CAROL GUESS, MARK HAUSMANN, NSCL, WES HITT, MSU, PAUL MANTICA, NSCL, MILAN MATOS, RIANON MEHARCHAND, MSU, KEI MINAMISONO, FERNANDO MONTES, GIORGIOS PERDIKAKIS, JORQUE PEREIRA, JILL PINTER, MAURITIO PORTILLO, HENDRIK SCHATZ, NSCL — β -decay nuclides in the immediate neighborhood of ¹⁰⁰Sn, were studied at NSCL using the β-Counting system (BCS) and the Segmented Germanium Array (SeGA). The nuclei of interest were implanted into the BCS double-sided silicon strip detector and properties from both implantations and the subsequent β -decays were recorded on an event-by-event basis, allowing for the direct observation of the half-lives and the β -delayed proton emission branching ratios. The BCS also contains a stack of Si detectors and a Ge planar detector downstream of the implantation detector to measure the total energy of the emitted beta particles, and hence the β -decay end-point energy. The properties of those nuclei are not only relevant for rp-process calculations but also are essential to understand the structure of the single particle states far from the line of stability, providing stringent tests of nuclear models in this region.

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