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Reacceleration of rare isotopes at the NSCL - The ReA3 project STEFAN SCHWARZ, GEORG BOLLEN, CHRIS COMPTON, MARC DOLEANS, WALTER HARTUNG, OLIVER KESTER, MIKHAIL KOSTIN, FELIX MARTI, PETER MILLER, XIAOYU WU, RICHARD YORK, QIANG ZHAO, NSCL/MSU - Rare-isotope beams in the energy range of a few 100 keV/u to up to several MeV/u allow for experiments such as low-energy Coulomb excitation and transfer reaction studies and for the precise study of astrophysical reactions. NSCL is currently constructing the so-called ReA3 expansion, a reaccelerator with design end energy of 3 MeV/u for  $^{238}$ U. The reaccelerator will be coupled to a gas stopper at the NSCL fragmentation facility to provide rare isotope beams of nuclides not available at ISOL facilities in this energy range. An Electron Beam Ion Source/Trap (EBIS/T) will be used to boost the acceleration process by providing highly charged ions at an energy of  $\sim 12 \text{keV/u}$ . The charge breeder is followed by a room-temperature radiofrequency quadrupole (RFQ) and a series of superconducting linear accelerator structures housed in three cryo modules. The status of the re-accelerator project and the planned layout will be presented.

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