

## Enhanced ion beam injection for HIAF

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Australia's Heavy Ion Accelerator Facility (HIAF) at the Australian National University (ANU) is undertaking a project to upgrade its ion beam injection capabilities. This involves the installation of an electrostatic analyser (ESA) to be used with the existing MSNICS ion source and a new additional ion source to produce negative helium beams. The project requires a major reconfiguration of ion sources at level 5 of the facility to accommodate three ion sources and upgrade the functional safety system to protect staff from the high voltage decks. Both the ESA and negative helium ion source will be supplied by National Electrostatics Corporation (NEC), with control components being a mix of NEC and ANU supplied components. Upon completion, the project will deliver improved sensitivity of Accelerator Mass Spectrometry for heavier nuclide detection and  $^3\text{He}$  and  $^4\text{He}$  (alpha particles) that users are demanding for research problems ranging from fundamental investigations of the quantum mechanics of nuclei to medical applications.

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