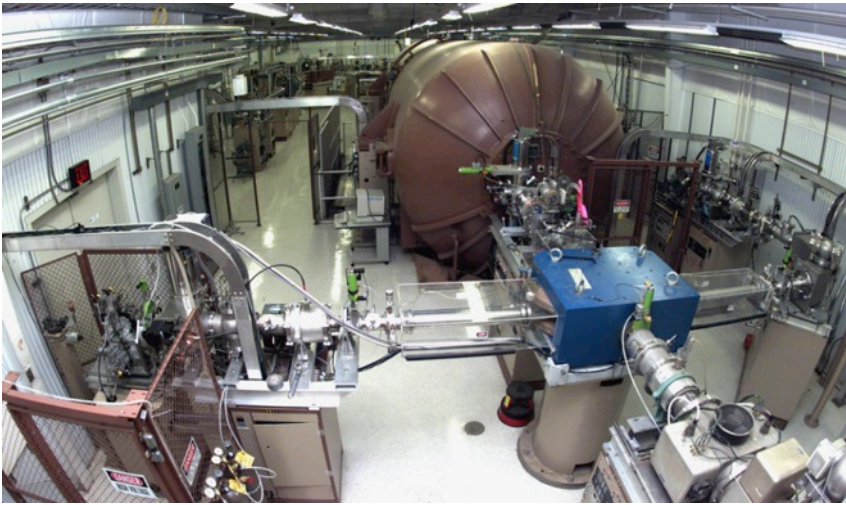
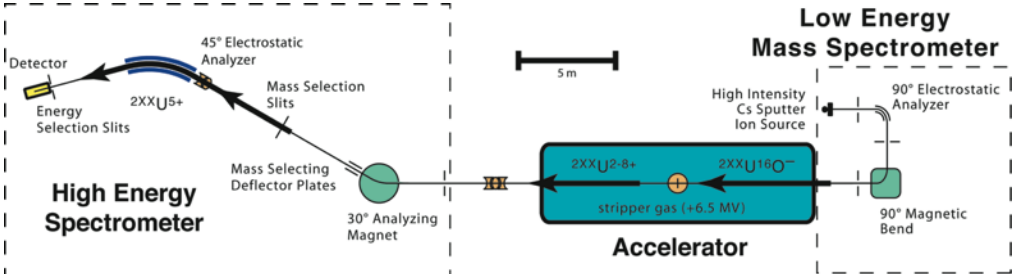


# Using accelerators to solve national security challenges



## Research Overview

Develop and apply accelerator mass spectrometry (AMS) and ion implantation techniques for stockpile stewardship, nuclear forensics, and non-proliferation.



## Potential Collaborations

- Heavy-isotope AMS
  - Environmental radiochemistry survey of Pu, I-129, Np-237, U-233, U-236 in the Marshall Islands
  - Application of I-129 as a tracer for ocean circulation patterns.
- Ion implantation
  - Materials aging studies
  - Nuclear reaction studies
  - Surrogate debris production for forensics exercises.

## Previous Dissertations

- I-129 extraction from seawater for AMS (Aaron Glimme, STAR Intern, 2013)
- High-resolution detector for AMS measurement of Fe, Co, Ni isotopes by AMS (Matthew Buckner, UNC, 2011)
- Sample prep methods for Fe, Co, Ni AMS (Meghali Chopra, Stanford, 2010)

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