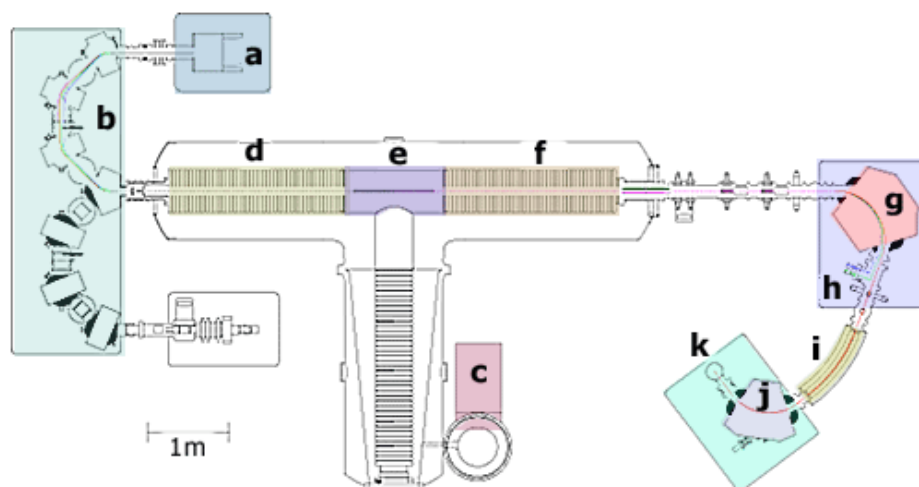


## NOSAMS: The AMS Instruments

### NOSAMS tandetron AMS system

The first NOSAMS accelerator was installed in 1989 at the Woods Hole Oceanographic Institution in Massachusetts. Accelerator mass spectrometry, or AMS, is a method of radiocarbon analysis where atoms of  $^{14}\text{C}$  contained in a sample are directly counted.



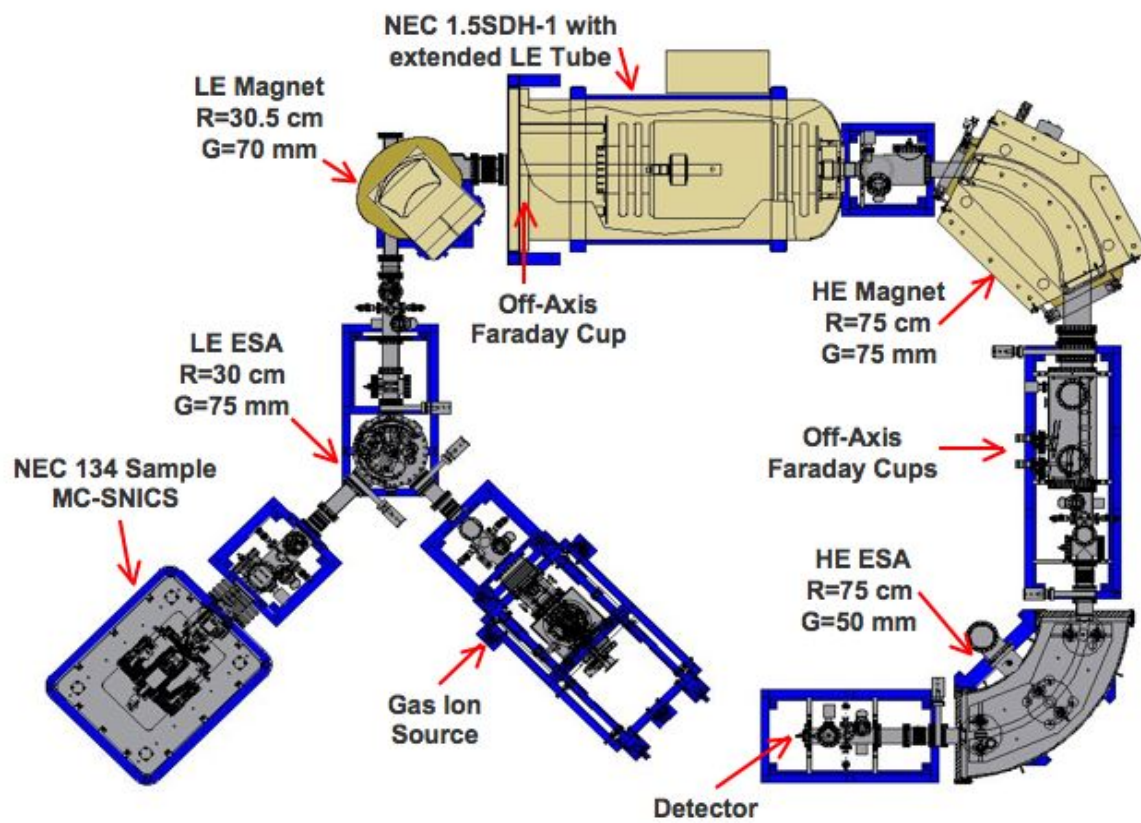
Schematic overhead view of the NOSAMS tandetron AMS system. The system is over 30' long and consists of a 2.5 million Volt tandem (two-stage) accelerator, sandwiched between a low-energy mass spectrometer to the left and a high-energy mass spectrometer to the right. Major sections of the system are labeled in the schematic and described in detail when you click on them.

[» Take the AMS Instrument Tour](#)

### Continuous-Flow AMS System (CFAMS)

The second [CFAMS instrument](#) was built and commissioned in 2006-2007. It is constructed around a 500kV compact pelletron accelerator. A bounced injection system with a modified SNICS solid sputter ion source as well as a microwave gas ion source are drawn on the left, and the high energy mass spectrometer and particle detection system is on the right.

Plan view of the continuous flow AMS (CFAMS) system.



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