Development of a new isotope-cycling system for the 14UD accelerator

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Accelerator Mass Spectrometry (AMS) measurements with the 14UD pelletron at the Australian National University are currently limited by the amount of time required to switch between isotopes. A new fast isotope-cycling system is being developed to improve measurement precision. Existing operational constraints and the desire to keep the new system as flexible as possible, bearing in mind the range of isotopes measured at the ANU, will require the development of some novel features. Details of the project and progress on development will be discussed.