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A new 1 MV AMS facility at IGCAS in Guiyang, China

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Institute of Geochemistry, Chinese Academy of Sciences (IGCAS), has installed a universal 1 MV AMS in February 2022. Manufactured by National Electrostatics Corporation, the United States of America, it is equipped with a 40 cathodes MC-SNICS ion source, a 90° injection magnet (mass energy product 5 amu-MeV), a model 3SDH-1 pelletron accelerator, a 90° high energy analysis magnet (mass energy product 36 amu-MeV), a 90°, 1.00 meter radius electrostatic spherical analyzer, a 45° B/Be separation magnet (mass energy product 36 amu-MeV) and a 2 channel gas detector. It is designed for high precision measurement of isotopes 10Be, 14C, 26Al and 41Ca. A clean chemistry laboratory has been developed for 10Be and 26Al chemical processing of samples. In addition, a sample preparation laboratory with automatic graphitization equipment (Aeon CEGS 12X) has also been setup for carbon sample preparation. Chemical procedural blanks of all the three isotope ratios can be routinely lower than 5×10-15. Furthermore, performance data for 10Be, 14C and 26Al and machine background will be reported as well.

Student Submission

No

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