New Developments at the Laboratory for Radiokrypton and Radioargon Dating at USTC

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The Atom Trap Trace Analysis (ATTA) method has allowed routine analysis of the long-lived noble-gas radioisotope ^{81}Kr, ^{85}Kr, and ^{39}Ar, which are ideal tracers for environmental water and ice samples. Together with ^{14}C, they cover an age range from a few to 1.3 million years. In this talk we will report the latest developments on radiokrypton and radioargon dating in our laboratory at the University of Science and Technology of China (USTC). In particular we'll show the recent works about radiokrypton dating with ice cores (~6kg) from Antarctica. Some technical advances will also be discussed including small sample handling, automated sample preparation methods as well as the current status for the ^{39}Ar-dating apparatus under development.

Website: http://atta.ustc.edu.cn