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AMS sample preparation method for Cl in soil

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Cl is a ubiquitous element in the environment. 36Cl ,half-life is 3.01x105a. The dating range can be up to 3.01x106a (10 times half-life), which covers the whole Quaternary period, has a unique advantage for the determination of Quaternary stratigraphy and Quaternary age. In recent years, with the continuous development of gas pedal mass spectrometry (AMS) technology, 36Cl has been measured with high sensitivity, which makes 36Cl dating technique more effective. With the development of accelerator mass spectrometry (AMS) , 36Cl can be measured with high sensitivity, which makes 36Cl dating technology promising. In this paper, we introduce the current status and difficulties in the study of 36Cl measurement by AMS. This paper introduces the current research status and research difficulties in the measurement of 36Cl using AMS, for the extraction of 36Cl in soil, and establishes a method for the preparation of 36Cl-AMS samples in the AMS laboratory of Guangxi Normal University (GXNU).The AMS samples were measured by the University of Tsukuba, Japan. Based on the obtained experimental data, the distribution of chlorine in soil at different depths in the Haihe River Basin was analyzed.

Student Submission

Yes

Primary authors: CHEN, Dingxiong (College of Physics and Technology, Guangxi Normal University, Guilin, Guangxi 541004, China); ZHANG, Guofeng (College of Physics and Technology, Guangxi Normal University, Guilin, Guangxi 541004, China); OUYANG, He (College of Physics and Technology, Guangxi Normal University, Guilin, Guangxi 541004, China); SHEN, Hongtao (Guangxi Normal university); TANG, Junsen; WU, Kaiyong (College of Physics and Technology, Guangxi Normal University, Guilin, Guangxi 541004, China); SASA, Kimikazu (University of Tsukuba); DU, Lingrong (Guangxi Normal University); QI, Linjie (College of Physics and Technology, Guangxi Normal University, Guilin, Guangxi 541004, China); Ms MASUMI, Matsumura (University of Tsukuba, Tsukuba, Ibaraki 305-8577, Japan); CHEN, Weixin (Guangxi Normal University); LIU, WenqIao (Guangxi Normal University); HUANG , Xinya (Guangxi Normal University); HAN, Xinyi (GUANG XI NORMAL UNIVERSITY)

Presenter: ZHANG, Guofeng (College of Physics and Technology, Guangxi Normal University, Guilin, Guangxi 541004, China)

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