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The Establishment of East Asia Accelerator Mass Spectrometry Association

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Accelerator Mass Spectrometry (AMS) technique was emerged as a discipline in the 1970's, after the demonstrating that tandem accelerators are suited to the detection of ^{14}C in natural materials for radiocarbon age dating ($^{14}\text{C}/^{12}\text{C} < 10\text{E}-12$). Since then, over 50 rare isotopes at such low abundances, from tritium to curium, have been detected using accelerators of varying sizes. Methods are continually being developed for smaller facilities and for better isotope detection sensitivity. AMS applications are similarly growing, new areas including biofuel content evaluation, climate history studies, nuclear environmental monitoring and pharmaceutical micro dosing.

The total number of world-wide AMS facilities has been more than 160, and early AMS laboratories were mainly built in the Americas and Europe. But in the past 20 years, AMS construction in East Asia has been on the rise, the number of AMS equipment has got to 54 in total, almost 1/3 of that in the world. The East Asia Accelerator Mass Spectrometry Symposia (EA-AMS) began 20 years ago as a compliment to the International AMS Conferences. And EA-AMS attracts specialists with diverse interests, from AMS application users to technique developers, to students just starting out in the field.

To strengthen mutual cooperation and friendship between the East Asia AMS Labs, Prof Weijian Zhou from Institute of Earth Environment, CAS proposed to establish an Association of East Asia AMS, and the proposal was discussed in the final session in the EA-AMS9 meeting and received unanimous approval from all attending representatives. Dr. Zhao Xiaolei from Beijing Normal University was elected as the conference secretary general, with the assistance of Dr. Liu Qi from the Institute of Earth Environment CAS.

The goals of EA-AMSA include but not limited to:

- to jointly apply grants and funding from governments and institutions;
- to promote effective cooperation among the East Asia AMS Laboratories in scientific research, in forms of both field exploration and laboratory experimentation;
- to exchange samples for inter-laboratory comparison and reference materials for analytical technique development.
- to expand social influence and seek various resources for our community.

As proposed and discussed during the 9th Symposium of East Asia Accelerator Mass Spectrometry at KIST, we have agreed to form an association of the EA-AMS facilities to promote collaboration within our community. On 5th march, 2024, the association website had been online, we put up a webpage for our presence in the conference management system run by Chinese Academy of Sciences. The link is: <https://eaams.casconf.cn/>, more than 1/3 of the AMS labs in East-Asia area had feedbacked and put their information on the website. And all EA-AMS facilities are welcome to contact us to join EA-AMSA, to be listed on this web page. The historic and recent news regarding to EA-AMS and related activities had been posted.

Student Submission

No

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