

ANNUAL REPORT ON GEOTRACES ACTIVITIES IN CHINA-BEIJING  
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Major progress in GEOTRACES-relevant activities in China during the year is highlighted by the start of the construction of two research vessels which are designed with chemically clean laboratories and sampling facilities, one for Xiamen University and the other for Ocean University of China.

The first Chinese cruise dedicated to GEOTRACES GP06-CN (PN) is planned for 19 Oct. - 2 Nov., 2015 with Jingling Ren / Meixun Zhao and Minhan Dai (Jing Zhang) as co-chief scientists using *R/V Dongfanghong 2* of Ocean University of China. Clean facilities in place for the cruise include X-Niskin bottles, Kevlar cable/electric winch, clean booth for sampling, and clean bench for filtration. Samples will be collected for the analysis of the following trace elements and isotopes: Al, Fe, Mn, REEs, Hg,  $^{228}\text{Ra}$  &  $^{226}\text{Ra}$ ,  $^{231}\text{Pa}$ ,  $^{230}\text{Th}$ ,  $\Delta^{14}\text{C}$  (DIC),  $\delta^{15}\text{N}$  ( $\text{NO}_3$ ),  $\delta^{13}\text{C}$  (DIC),  $\delta^{30}\text{Si}$ ,  $\delta^{18}\text{O}$  ( $\text{H}_2\text{O}$ ).

Despite current lack of facilities in China for GEOTRACES section cruises, several studies are relevant to GEOTRACES scientific activities. These include investigation of the influence of eastern Asian dust events on the geochemical behaviour of the particle active nuclides in Northwest Pacific using Th/Pa isotopes and study of the shelf-estuary interaction and  $\text{CO}_2$  source-sink and main regulating mechanisms in the river-dominated margin, the estimation of benthic flux of dissolved inorganic carbon into the Pearl River estuary and estimation of nutrient fluxes via submarine groundwater discharge using radium isotopes.

International collaboration is playing more active role in promoting GEOTRACES activities in China. For example, recent collaboration between China and Germany has led to the first results of non-traditional stable isotopes (Si) studies on samples from in the East China Sea.

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