

Profile

Jixin Qiao's research is centered on development of radiochemical methods and automation techniques for determining difficult-to-measure radionuclides, and the application of anthropogenic radiotracers in environmental and oceanic studies. Her major contribution to science include: 1) Development of automated radioanalytical apparatus based on advanced flow techniques including flow injection (FI), sequential injection (SI) and lab-on-valve (LOV); 2) Method development for determining low-level radionuclides in various environmental and waste samples based on advanced mass spectrometric techniques including inductively coupled plasma mass spectrometry (ICP-MS) and accelerator mass spectrometry (AMS); 3) Pioneering oceanic tracer application using anthropogenic uranium isotopes (U-233 and U-236) in the Baltic Sea and the Arctic Ocean; 4) Application of radioactive isotopes for environmental tracer studies including soil erosion, geological dating, pollutant transport, carbon cycling, ocean circulation and climate change.

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Research outputs

Anthropogenic ^{236}U and ^{233}U in the Baltic Sea: distributions, source terms, and budgets

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