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TITLE: Triclosan determination in water related to wastewater treatment

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ABSTRACT:

Triclosan in the waste, river and sea water samples collected in Hong Kong was analyzed by using gas chromatography-ion trap mass spectrometry method.  $^{13}\text{C}_{12}$ -triclosan was used as internal standard for the quantitative analysis. Water samples were prepared and cleaned-up by using a C18 solid-phase extraction cartridge. The recoveries of triclosan in spiked coastal water at three different concentrations ranged from 83 to 110%. The method detection limit was 0.25 ng/L for triclosan in 1-L water and the relative standard deviations and relative error were less than 11.0 and 12.3%, respectively ( $n = 3$ ). The method was successfully applied to analyze water samples collected from rivers, coastal water bodies and wastewater treatment plants at ng/L levels.

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CONCEPTS: ['Triclosan', 'Chemistry', 'Wastewater', 'Detection limit', 'Solid phase extraction', 'Environmental chemistry', 'Extraction (chemistry)', 'Chromatography', 'Relative standard deviation', 'Seawater', 'Environmental science', 'Environmental engineering', 'Medicine', 'Oceanography', 'Pathology', 'Geology']