

Waters Lab Highlights

An Internal Communication
of Applications and Techniques

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PC,TR/ES/MD/PG/DY

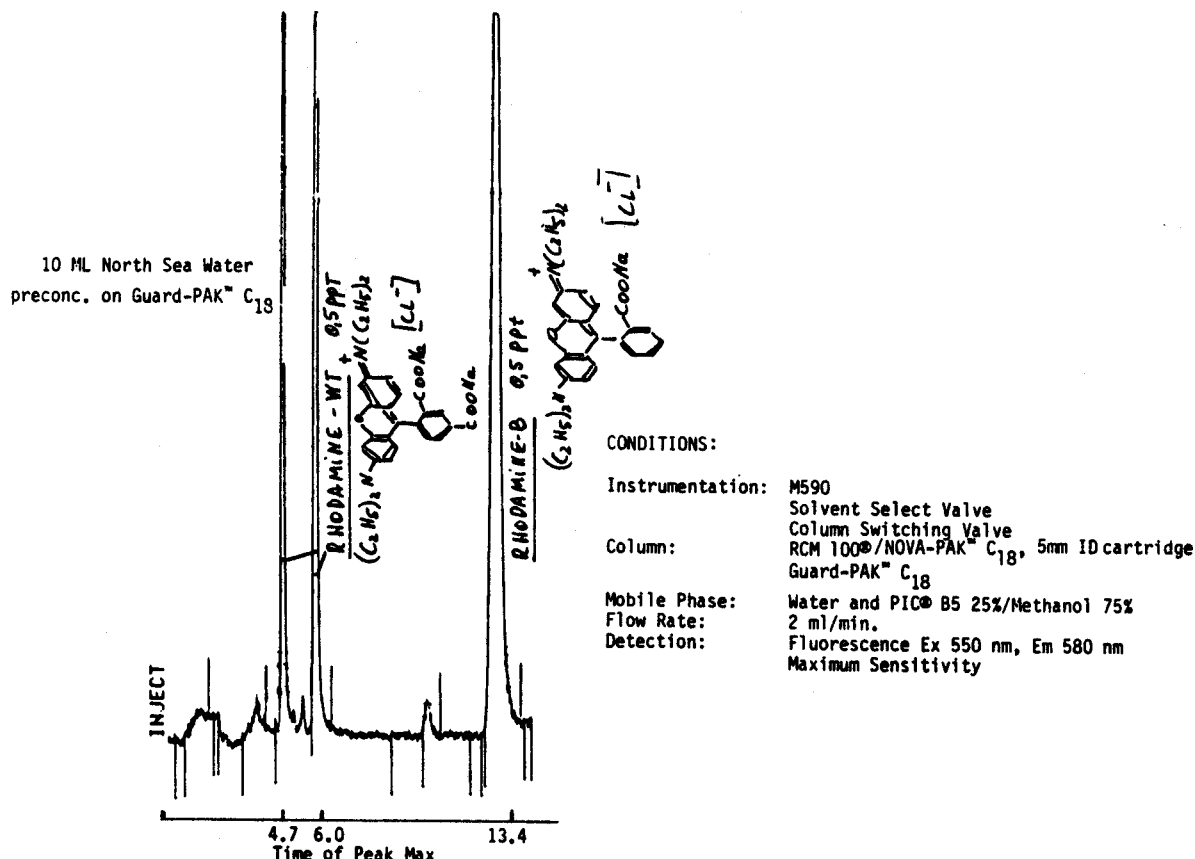
USING THE RCM-100[®] MODULE AND NOVA-PAK[™] C₁₈ CARTRIDGE

RESULTS IN LOWER LEVEL DETECTION WHEN MONITORING POLLUTION DISTRIBUTIONS

By using the RCM-100^R Radial Compression Module and NOVA-PAK[™] C₁₈ cartridge, the amount of Rhodamine dye used to study the pollutant flow pattern of the Rhine River along the North Sea can be reduced from 200 Kg to only 20 Kg.

Rhodamine-B and Rhodamine WT are used as tracers to follow the downstream travel and flow of pollutants. By placing a known weight of the dyes into a river or stream, the pattern and distribution of a possible pollutant can be ascertained. The present method of monitoring the downstream concentration of the dye is a fluorescence spectrophotometer which has a detection level of 10 ppt.

With the RCM-100^R and NOVA-PAK[™] C₁₈ cartridge a separation shown below has enabled the researchers to use a preconcentration step and reach a lower level of detection of 0.01 ppt using a preconcentration from only 100 ml of water.



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