



Recycling Preparative HPLC
LaboACE LC-5060

Separation of Nitropyrene Compounds

Keyword:

Environmental Pollutants, Preparative HPLC, Silica Gel Column

Introduction

This is a study to try to separate 1-Nitropyrene, 1,3-, 1,6-, and 1,8-Dinitropyrenes, which are the substances found in SPM (Suspended Particulate Matters) and diesel exhaust, using Recycling Preparative HPLC.

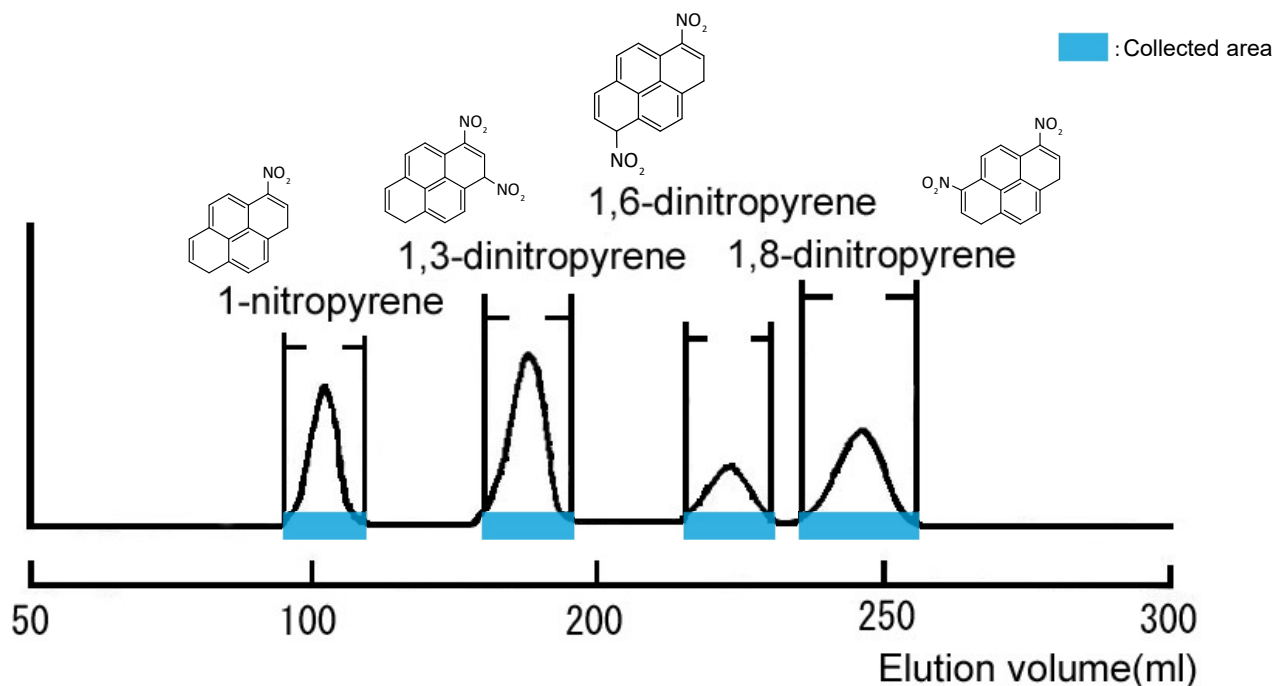
It is known that these substances damage DNA and chromosome of living things and induce mutation.

Experiment and Results

Sample: Mixture of synthesized 1-Nitropyrene, 1,3-, 1,6-, and 1,8-Dinitropyrenes

Below is the chromatogram of recycling preparative HPLC

Instrument : LC-09 (Detector : UV(254 nm))
Column : JAIGEL-SIL
Mobile phase : n-hexane / dichloromethane (8 / 2)
Flow rate : 5.7 mL/min



Conclusion

We have successfully separated the four compounds using silica gel column.

Source: 47th Series, Annual Report 1984
Osaka Municipal Environmental Science Research Center