

Analysis of 2,4-DNPH derivatives of aldehydes and ketones

Formaldehyde and acetaldehyde well known as toxic air pollutants can be analysed using HPLC after derivetizing with 2,4-dinitrophenylhydrazine (2,4-DNPH). Fig 1 shows the chromatogram of standard samples derivetized by 2,4-DNPH of 15 kinds of aldehydes and ketones.

Keywords: 1. 2,4-DNPH derivatives of aldehydes and ketons, 2. STD mixture, 3. ODS, 4. UV, 5. EPA method

Conditions:

Column : CrestPak C18S
 Eluent : A-H₂O/CH₃CN/THF(60/30/10)
 B-H₂O/CH₃CN(40/60)

Time(min)	0	1	11	25	26
A(%)	100	100	0	0	100
B(%)	0	0	100	100	0
1cycle	40min				

Wavelength: 360nm
 Flow rate: 1.5ml/min
 Column temperature: 40 degree celsius
 Sample: STD mixture(0.35 to 1.05ug/ml)
 Injection volume: 20μl

