

## Analysis of 2,4-DNPH derivatives of aldehydes and ketones with semi micro HPLC

Various aldehydes such as formaldehyde and ketones such as acetone, considered as hazardous air pollutants, were analyzed by reversed phase HPLC following derivatization by 2,4 dinitrophenylhydrazine.

Fig. 1 shows results of analyzing 15 kinds of derivatized aldehydes / ketones using a semi-micro high pressure gradient system with dynamic mixing.

**Keywords:** 1. 2,4-DNPH derivatives of aldehydes and ketones, 2.STD mixture, 3.ODS, 4.UV, 5.semi micro HPLC

### Conditions:

Column: CrestPak C18T-5  
(2.1mm ID x 250mm)  
Eluent: A: H<sub>2</sub>O/CH<sub>3</sub>CN/THF(60/30/10)  
B: H<sub>2</sub>O/CH<sub>3</sub>CN(40/60)

Time(min)	0	1	18	40	41
A(%)	100	100	0	0	100
B(%)	0	0	100	100	0
1cycle	65min				

Wavelength: 360nm  
Flow rate: 0.3ml/min  
Column temperature: 40 degree celsius  
Sample: STD mixture(0.35 to 1.05µg/ml)  
Injection volume: 4µl

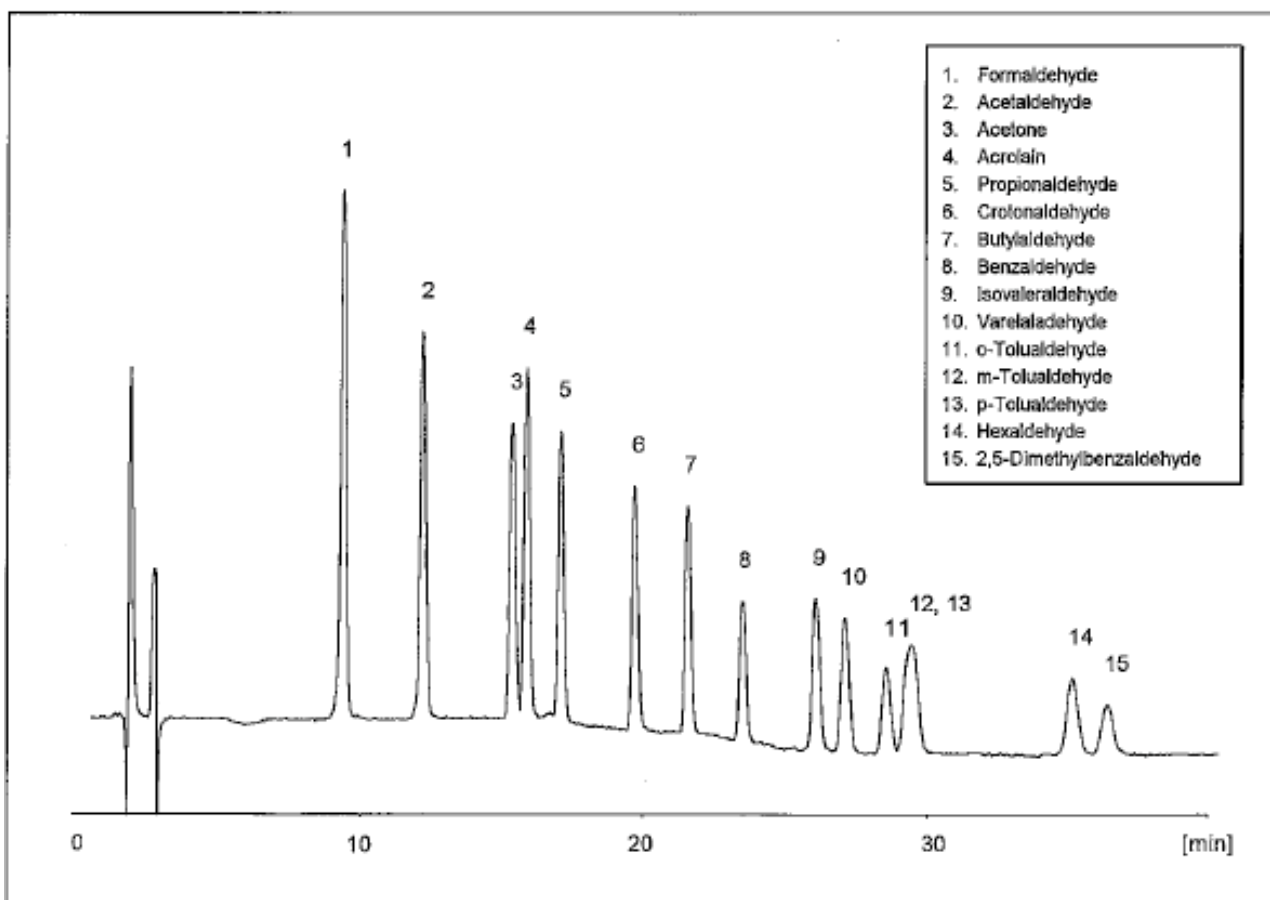


Fig. 1 Chromatograms of 2,4 dinitrophenylhydrazine derivatized aldehydes / ketones using semi-micro HPLC.