

## Chromatography of Hard-To-Resolve Samples like condensed ring aromatic compounds

Automatic method setting is now possible with Toluene!

When run with the elution solvents such as hexane/ethyl acetate and/or chloroform/methanol, condensed ring aromatic compounds and/or compounds with many aromatic rings to be used to develop organic electronic industrial materials such as the organic electro-luminescence can be crystallized or may not be retained by solid phase of a separation column long enough. This will result in poor separations. In that case, the sample separation will be improved by using toluene as one of the elution solvents.

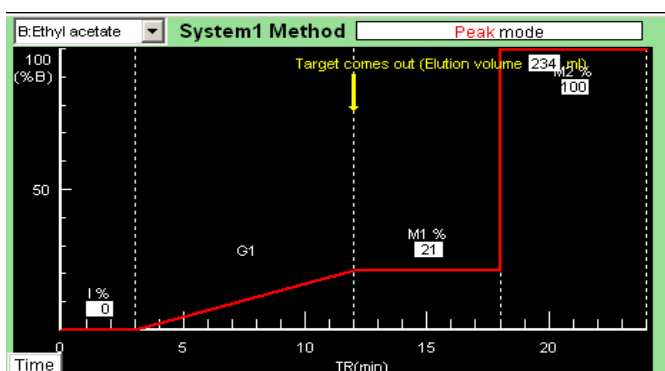
### [ 1 ] Automatic method setting with hexane/toluene

File 3a (suitable for condensed ring aromatic compounds and/or low polarity aromatic compounds)

Select solvent file 3a.

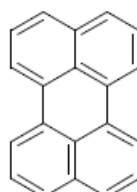


Input the TLC Rf value of the target compound, select a solvent mixture ratio from a pull-down menu, and select an elution mode.

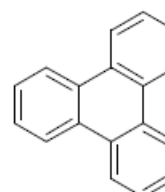


### Recommended compounds

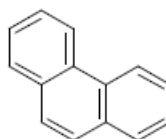
#### Condensed ring aromatic compounds



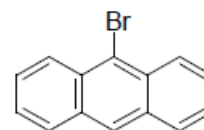
Perylene



Triphenylene

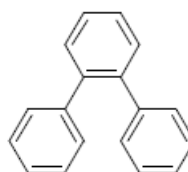


Phenanthrene

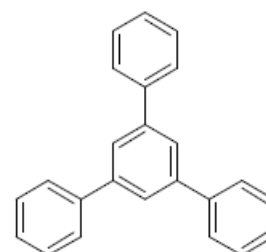


9-Bromanthracene

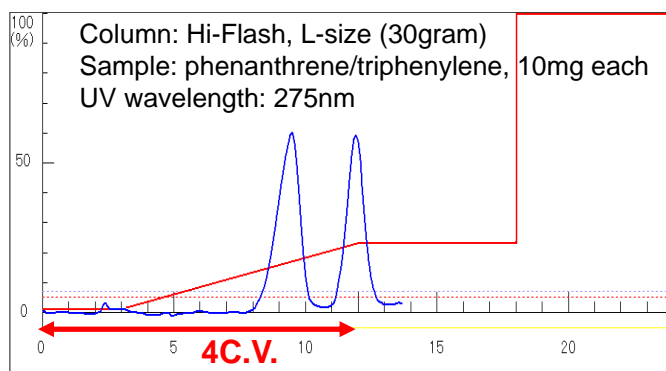
#### Low polarity aromatic compounds



O-Terphenyl



1,3,5-Triphenylbenzene

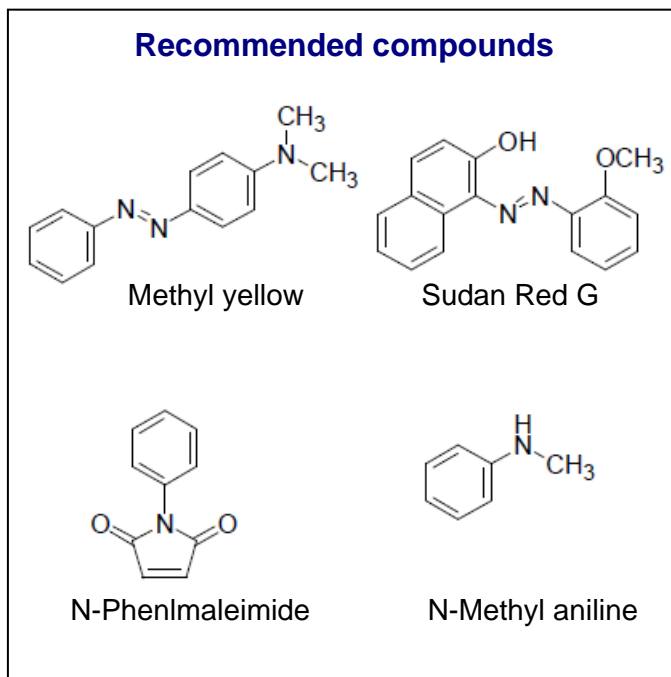
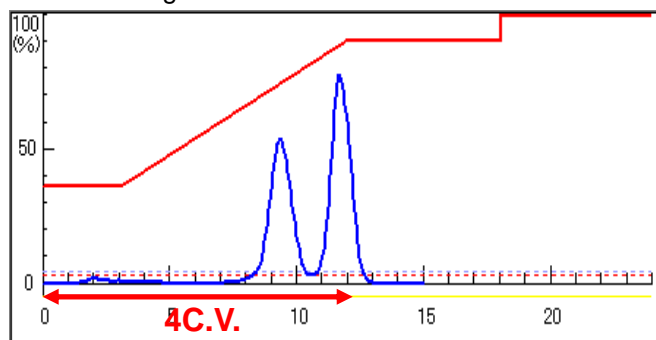


## [ 2 ] Automatic method setting with hexane/toluene

File 3b (suitable for aromatic compounds containing heteroatom)

Equilibration Method		Solvents	
Solvent selection	A Hexane	B Ethyl acetate	
File 3b	C Toluene	D Methanol	
<b>Automatic method setting is available</b> A/C for aromatic compounds with hetero atom			

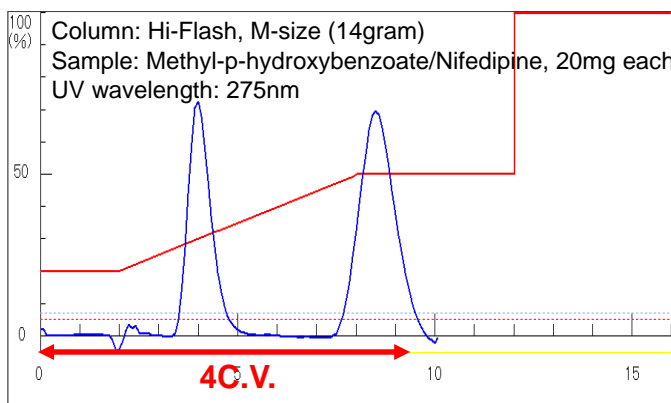
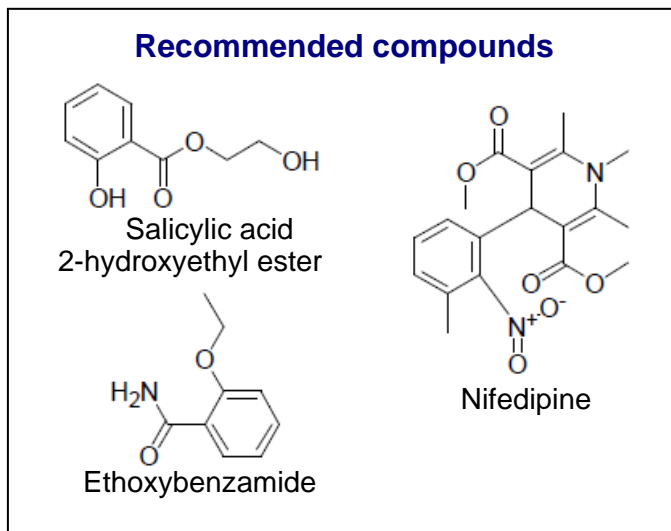
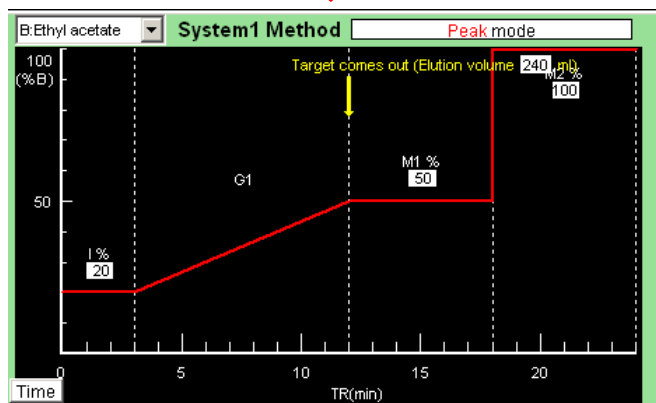
Column: Hi-Flash, L-size (30gram)  
Sample: N-methylaniline/methyl yellow, 10mg each  
UV wavelength: 275nm



## [ 3 ] Automatic method setting with toluene/ethyl acetate

File 3a & 3b (suitable for those compounds that cannot be run by TLC with hexane/toluene.)

Method setting		System Setting	
<b>Automatic Chromatographic Method Set-up</b>			
Spot Rf value on TLC.			
Rf 0.20		1.0	
Solvent mixing ratio			
C:Toluene		B:Ethyl acetate = 80 : 20 (= 8 : 2)	
Elution mode			
ISO	STEP 0.35	GR 0.2	0.5



**YAMAZEN CORPORATION**

HEAD OFFICE : RECRUIT SHINOSAKA BLDG. 3F, 5-14-22 NISHINAKAJIMA,  
YODOGAWA-KU, OSAKA 532-0011, JAPAN  
TEL: +81-6-6304-5839 FAX: +81-6-6304-3681  
R & D : SANWA BLDG. 101, 4-6-10 NISHINAKAJIMA, YODOGAWA-KU,  
OSAKA 532-0011, JAPAN  
TEL: +81-6-6304-7284 FAX: +81-6-6304-7283  
E-MAIL : info@yamazenc.co.jp WEB SITE : http://www.yamazenc.co.jp