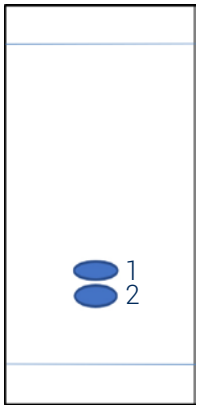
Purification of Benzoin, Benzaldehyde & Acyloin using PF-15SIHP-F0025

Application Note #045

1. TLC method development

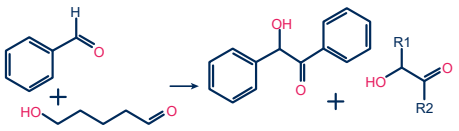


Mobile phase:
91% Petroleum ether / Ethyl acetate 9%

Compound of interest:
compound 2

Compound	Rf	CV
1	0.29	3.45
2	0.25	4

ΔCV=0.55



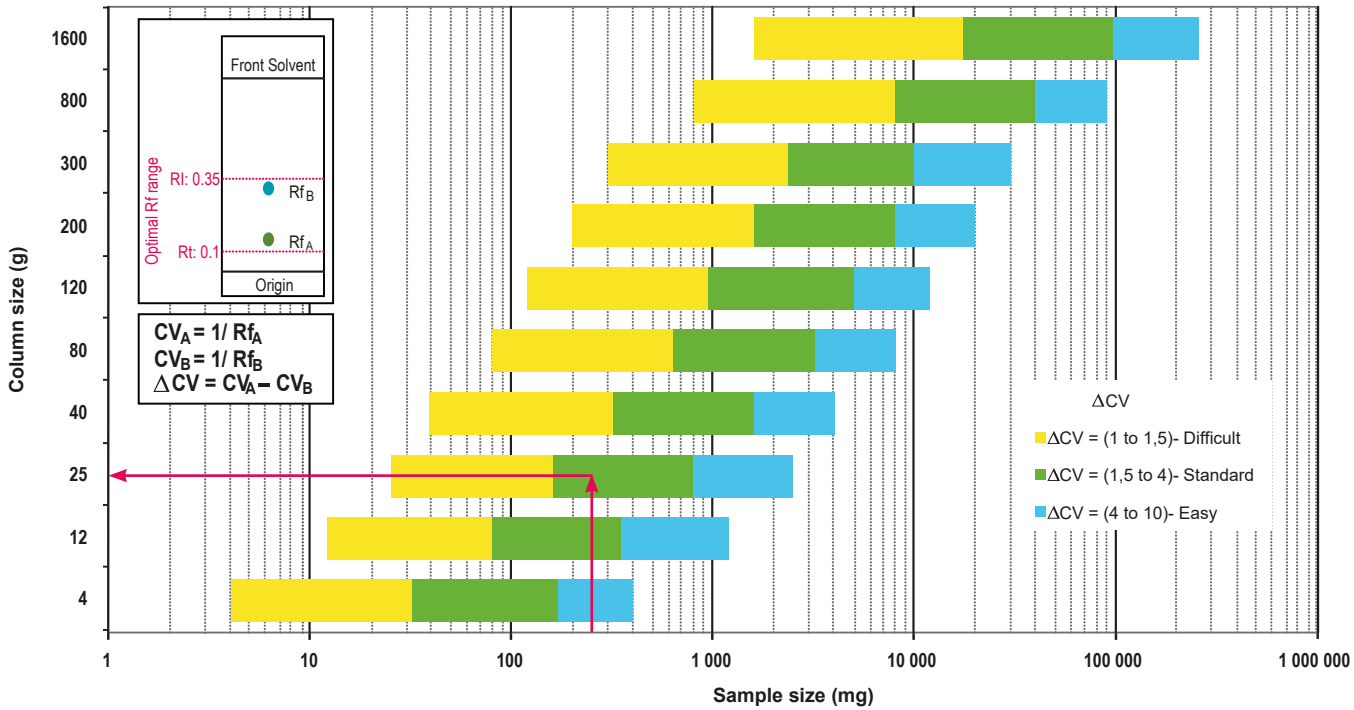
2. Choice of the column according to the ΔCV & crude sample mass

Crude sample: 250mg

Column: PF-15SIHP-F0025

Loading capacity: 1%

Loading Selection Guide for puriFlash® IR-50SI (Edition 2008-2017)

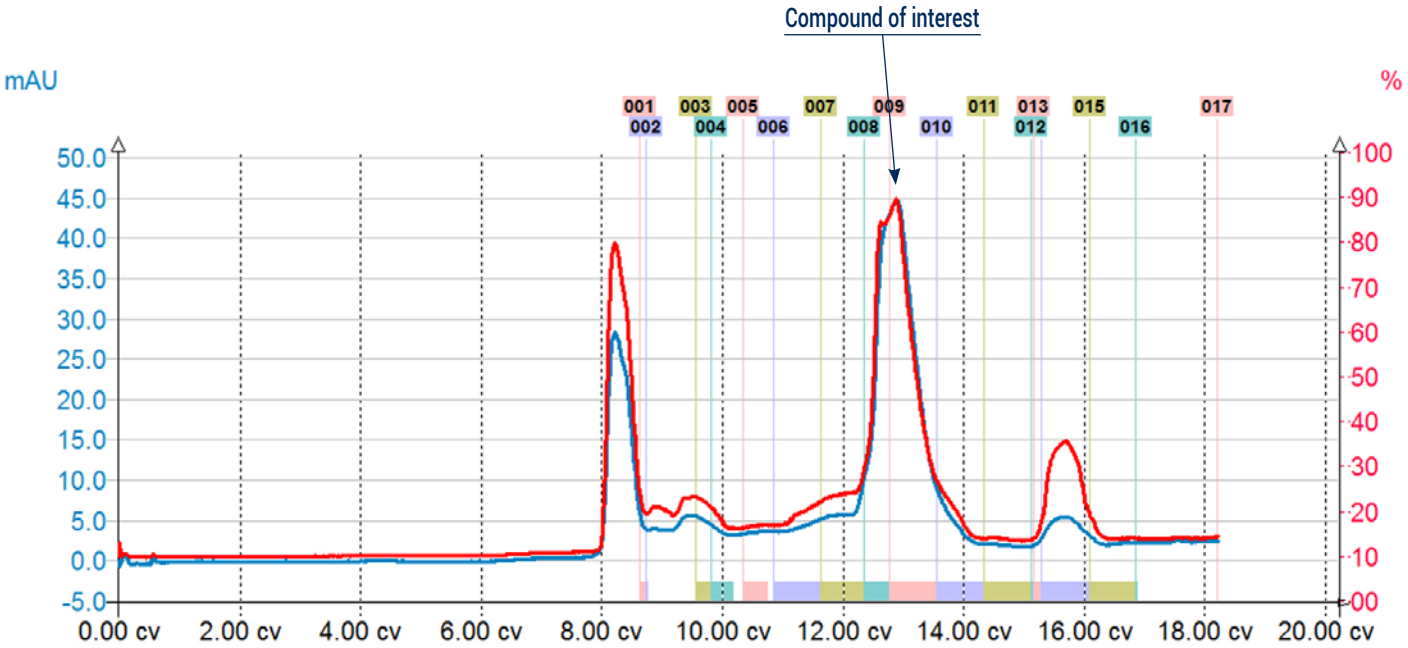


Customer has chosen to use a PF-15SIHP-F0025 column to obtain a better separation (efficiency & purity) than with a IR-50SI-F0025 column.

3. Flash conditions

Device: puriFlash® 450 (or now puriFlash® 5.050)
Solvents: A: Petroleum Ether
B: Ethyl Acetate
Column: PF-15SIHP-F0025
Flow rate: 15mL/min
Injection mode: Solid deposit with celite (Dry-load F0004)
Crude sample: 250mg
Detection: UV 280nm (blue) , UV Scan 200-600nm (red)
Elution conditions:

CV	A (%)	B (%)
0	98	2
1	98	2
11	82	18
13.5	82	18
14.5	75	25
16	75	25



To achieve this purification:

You will need

- puriFlash® 5.050
  Discover it Add to card
- puriFlash® column PF-15SIHP-F0025
  Discover it Add to card
- puriFlash® Dry-load PF-DLE-F0004
  Discover it Add to card

We highly recommend

- 18x150mm Rack
  AYHE50 Add to card
- Tube holding claw 18mm
  AYHED0 Add to card
- Safety waste cap with container 5L+ Filter
  B1SUJ0 Add to card

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