Waters
Lab Highlights
An Internal Communication of Applications and Techniques
LAH 0072 10/82

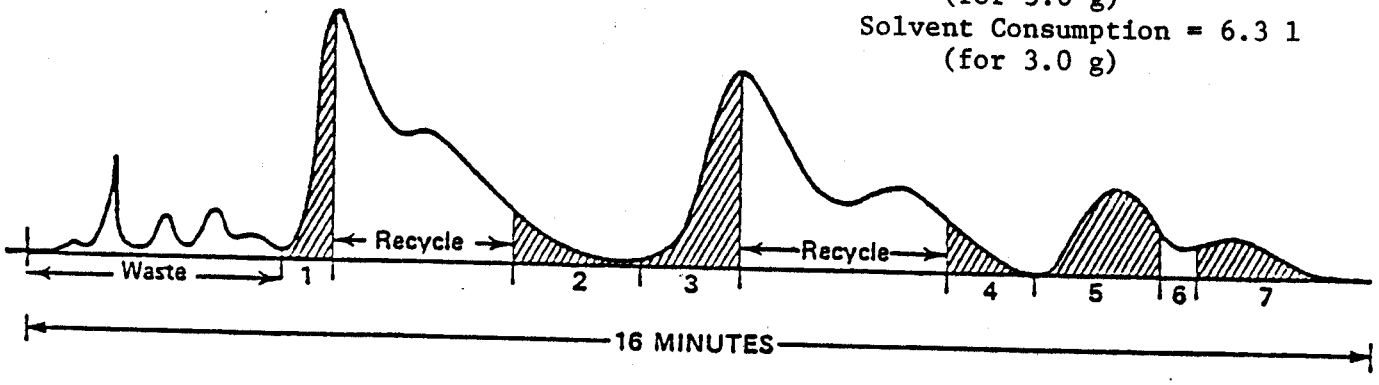
SHAVING-RECYCLE TECHNIQUE FOR SAMPLE RECOVERY

The shaving-recycle technique is the best approach when total recovery of both components is of high importance. The example below shows the experimental verification of the peak shaving-recycle technique on a separation with $\alpha = 1.3$. The alternative is to run the lightly loaded system six times.

Clearly the PrepLC™ System with recycle is the only instrumentation optimized for preparative needs--highest throughput, lowest separation times, lowest solvent consumption, lowest column investment.

Heavily Loaded
R = 0.7, on the first pass
3.0 g Load, 500 ml/min

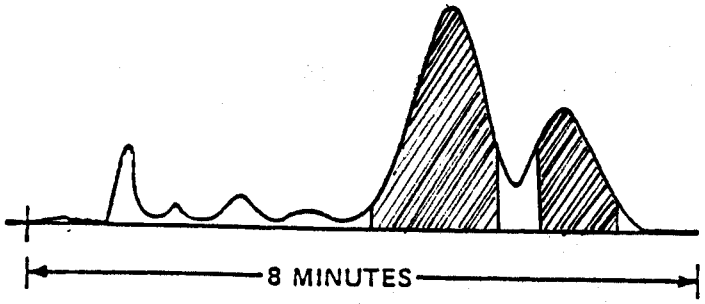
Throughput = 0.19 g/min
Separation Time = 16 minutes (for 3.0 g)
Solvent Consumption = 6.3 l (for 3.0 g)



Lightly Loaded
R = 1.25
0.5 g Load, 500 ml/min

Run 6 times for 3.0 grams

Throughput = 0.06 g/min
Separation Time = 48 minutes (for 3.0 g)
Solvent Consumption = 24 l



 = Fraction

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