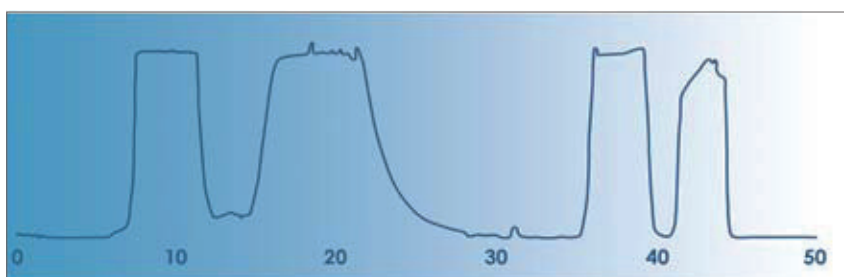


Purification Scale Up Using HPLCC Instruments

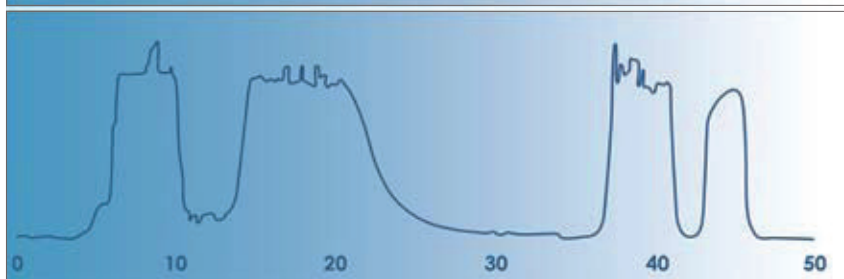
Scaling up a purification process is essential when large quantities of materials are required. Solid-liquid chromatographic processes often require method redevelopment as purification scale increases. However, for HPLCC, load mass and volume-related dimensions scale linearly in proportion to the ratio of the column volumes being scaled.

The data below demonstrate a 42-fold scale up of the four component mixture comprising 1: Methyl 2-acetamido-5-bromobenzoate; 2: Warfarin; 3: 4-Bromobenzamide; 4: Dipyrindamole.

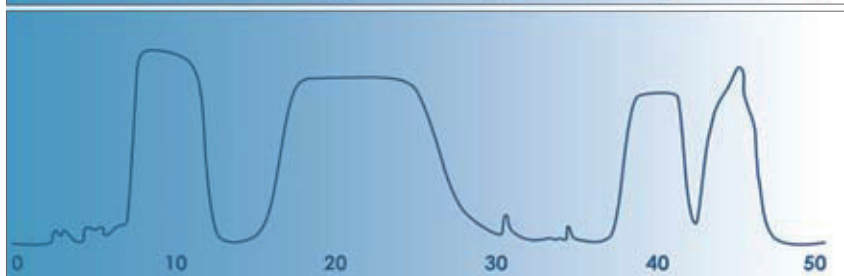
Analytical column
Loading 0.2 grams



Semi-prep column
Loading 1.2 grams



Preparative column
Loading 8.4 grams



Instrument	Mini	Spectrum	Midi
Column	analytical	semi-preparative	preparative
Column Volume (mL)	21	134	912
Nominal Scale Up Factor	1x	6x	42x
Flow Rate (mL/min)	1	6	42
Stationary Phase Retention (%)	84	89	88
Loading (g)	0.2	1.2	8.4
Loading Volume (mL)	2	12	82

Experimental Conditions: HEMWat SS 17 (Hexane:Ethyl acetate:Methanol:Water, 1:1:1:1, v/v/v/v), NP mode elution. In all three experiments, following 30 minutes of 'classical' elution, the column contents were extruded by pumping LP through the column



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