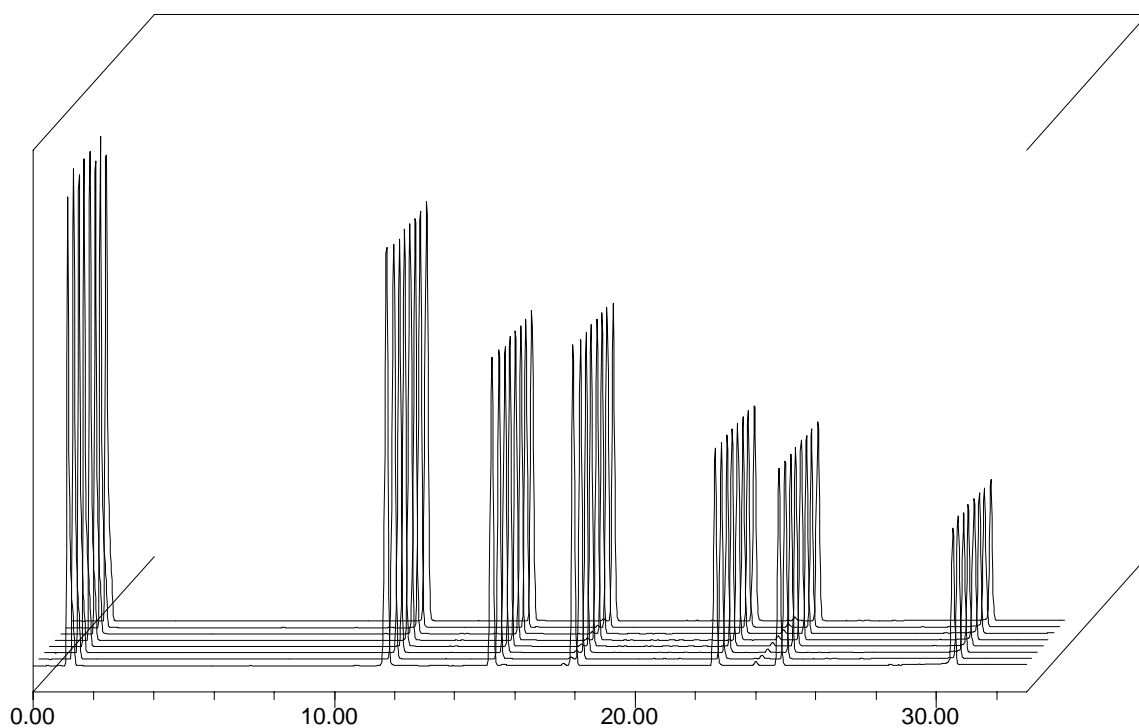


LC Module 1 Gradient Reproducibility

A separation of six alkylphenones and uracil using a 30-minute linear gradient highlights the excellent gradient reproducibility of the LC Module 1.



To properly identify component peaks in an HPLC separation, retention times must be consistent. Gradient solvent delivery systems are particularly challenged to accurately reproduce solvent proportion gradients in order to achieve peak retention time reproducibility. The eight replicate injections shown above demonstrate the capability of the LC Module 1 to deliver gradients with excellent reproducibility, even with linear gradient curves such as this 30-minute gradient.

System:	LC Module 1 UV detection @ 254nm
Mobile phase:	A- Water B- Acetonitrile 10% B to 100% B over 30 min., linear curve, hold at 100% B for 5 min.
Column:	Nova-Pak C18 3.9 X 150mm
Sample:	Uracil and C2, C3, C4, C6, C7, C10 alkylphenones

Peak Results Component Summary for Retention Time

#	SampleName	Vial	Inj	uracil (min)	C2 (min)	C3 (min)	C4 (min)	C6 (min)	C7 (min)	C10 (min)
1	alkylphen	1	2	1.167	11.750	15.233	17.950	22.667	24.783	30.567
2	alkylphen	1	3	1.150	11.783	15.283	17.983	22.667	24.783	30.517
3	alkylphen	1	4	1.167	11.783	15.300	18.000	22.683	24.800	30.533
4	alkylphen	1	5	1.167	11.800	15.300	18.017	22.683	24.800	30.533
5	alkylphen	1	6	1.150	11.800	15.300	18.000	22.683	24.800	30.533
6	alkylphen	1	7	1.167	11.817	15.317	18.017	22.700	24.817	30.550
7	alkylphen	1	8	1.167	11.800	15.300	18.017	22.700	24.800	30.550
8	alkylphen	1	9	1.167	11.800	15.300	18.017	22.683	24.800	30.550

-- Peak Results Component Summary for Retention Time Summary --

uracil Mean: 1.163 +/- 0.0079 min

uracil %RSD: 0.677

C2 Mean: 11.792 +/- 0.0200 min

C2 %RSD: 0.170

C3 Mean: 15.292 +/- 0.0254 min

C3 %RSD: 0.166

C4 Mean: 18.000 +/- 0.0237 min

C4 %RSD: 0.132

C6 Mean: 22.683 +/- 0.0125 min

C6 %RSD: 0.055

C7 Mean: 24.798 +/- 0.0109 min

C7 %RSD: 0.044

C10 Mean: 30.542 +/- 0.0155 min

C10 %RSD: 0.051

A system with the high sample throughput capability of the LC Module 1 is complemented by the advanced capabilities of Waters Millennium Chromatography Manager. This Millennium Summary Report provides a comprehensive comparison of peak retention times. Peak retention times are reported for each component by injection, and statistical summary data is calculated automatically. Similar Summary Reports can be generated to provide statistical data on other peak values such as peak height, peak area, or quantitated amounts.

Waters LC Module 1... High Performance in a Fully Integrated System

The LC Module 1 provides the advantages of four-solvent gradient capabilities with a 96-vial autosampler for high sample throughput. An optional membrane degasser unit can be added to allow for on-line solvent degassing. Single keypad control makes the system easy to operate, and the integrated design saves lab bench space. The system is Millennium compatible and performance is factory validated both structurally and functionally before shipment to ensure rapid startup. Test results and materials to perform tests are shipped with each instrument.