

miniLiLi column loading test by methyl and ethyl paraben mix

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INTRODUCTION

Loading test by paraben mix.

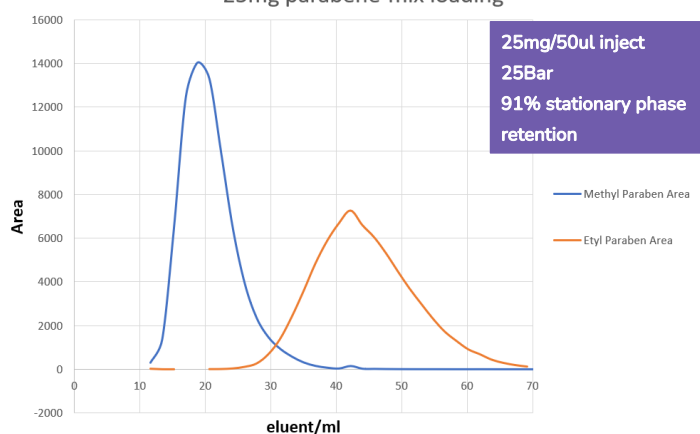
METHOD DESCRIPTION

Equipment	miniLiLi
Mode	Descending mode
Solvent system	135ml hexane; 15ml EtOAc; 60ml acetonitrile; 240ml water
Flow rate	1ml/min
Rotor speed	1500 rpm
Sample	10mg, 25mg, 100mg paraben mix solved in EtOAc (0.05, 0.05, and 0.25ml)
Detection	fraction by HPLC
Fraction	1.8ml fraction, start 6 min.

RESULTS AND DISCUSSION

After 6min, the fraction collection was started. Each fraction measured by HPLC. Main fraction yield and purity was calculated. Target purity is more than 99.0%. During the experiments, we examined the loadability of the chromatography column.

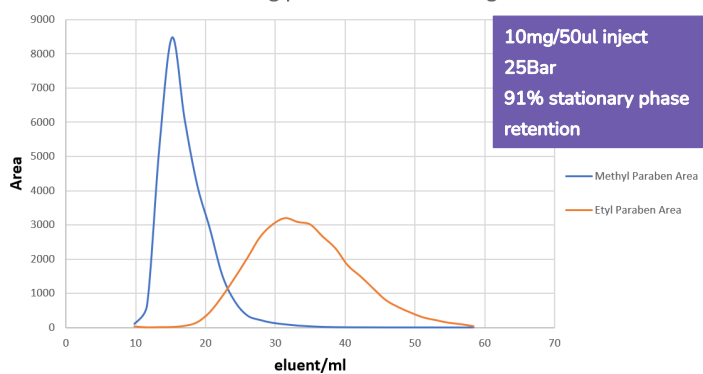
25mg parabene-mix loading



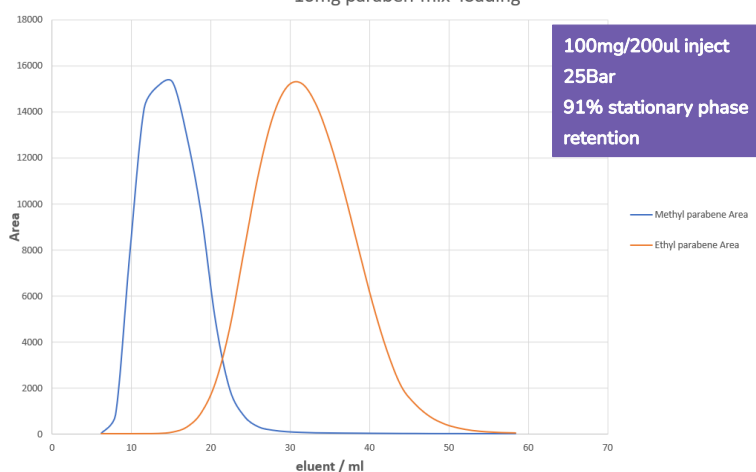
The yields of the combined fractions were summarized in a table.

Loading/mg	Main fractions			
	Methyl paraben	Ethyl paraben	Methyl paraben	Ethyl paraben
	Purity %	Yield %	Purity %	Yield %
10	99,2 %	78,2 %	99,1 %	86,2 %
25	99,4 %	94,8 %	99,1 %	87,9 %
100	99,4 %	66,7 %	99,2 %	56,5 %

100mg parabene-mix loading



10mg paraben-mix loading



CONCLUSION

The results demonstrate the high loading capacity of the miniLiLi column and the reliability of LiliChro technology at method development scale