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10033 - Column Application Note Characterization of Poly(methacrylic acid)

Poly(methacrylic acid) is obtained from polymerization of methacrylic acid. Poly(methacrylic acids) are used as flotation additives and water adsorbers.

Experimental Setup

Mobile Phase:	Water Disodium hydrogen phosphate 0.07M
Stationary Phase:	PSS SUPREMA
Flow rate [mL/min]:	1,00
Temperature [°C]:	35
Detection:	Shodex-RI71
Calibration:	Kit Poly(methacrylic acid) sodium salt
Data processing:	PSS WinGPC

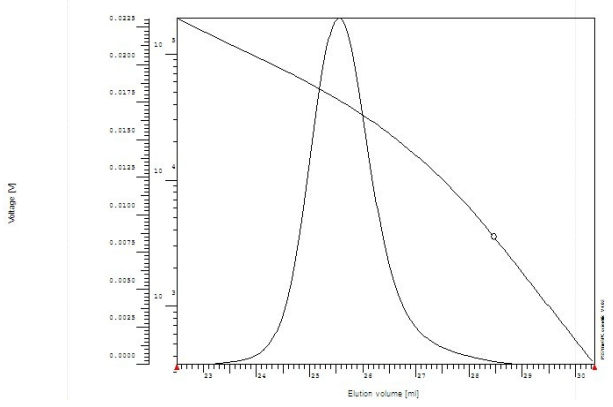
Recommandations for Sample Concentration

narrow PDI	
M 100 Da - 10 000 Da:	2 g/L
M 10 000 Da - 1 000 000 Da:	1-2 g/L
M > 1 000 000 Da:	0.5 g/L or less
broad PDI (>1.5)	
all molar masses:	3.0 - 5.0 g/L
Injection volume [µL]:	100

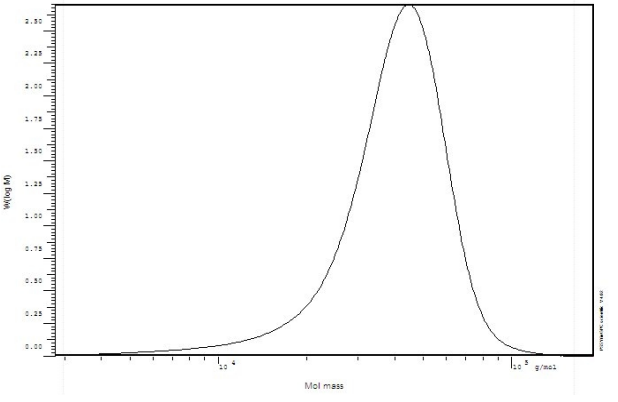
Suitable Columns

low molecular weights:	P/N 206-0001 (set of 3) OR sua083005lis (1 linear)
medium molecular weights:	P/N 206-0002 (set of 3) OR sua083005lim (1 linear)
high molecular weights:	P/N 206-0003 (set of 3) OR sua083010lxl (1 linear)
ultrahigh molecular weights:	P/N 206-0004 (set of 3) OR sua083010luh (1 linear)

Elugram and Calibration
separation on PSS SUPREMA



Molar Mass Distribution
separation on PSS SUPREMA



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