

Errata Notice

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10009 - Column Application Note Characterization of Cellulose Triacetate

Cellulose triacetate is prepared from cellulose with acetic acid anhydride in acetic acid, catalyzed by strong acids like sulfuric acid. Cellulose triacetate is mainly used for photographic films but also in many other applications. It is soluble in dichloromethane and acetic acid. Cellulose triacetate resists against aliphatics, but decomposes in alcohols, acetone, acetic acid and bases.

Experimental Setup

| | |
|---------------------|----------------------------|
| Mobile Phase: | Tetrahydrofuran |
| Stationary Phase: | PSS SDV |
| Flow rate [mL/min]: | 1,00 |
| Temperature [°C]: | 25 |
| Detection: | Shodex-RI71 |
| Calibration: | ReadyCal-Kit Poly(styrene) |
| Data processing: | PSS WinGPC |

Recommendations for Sample Concentration

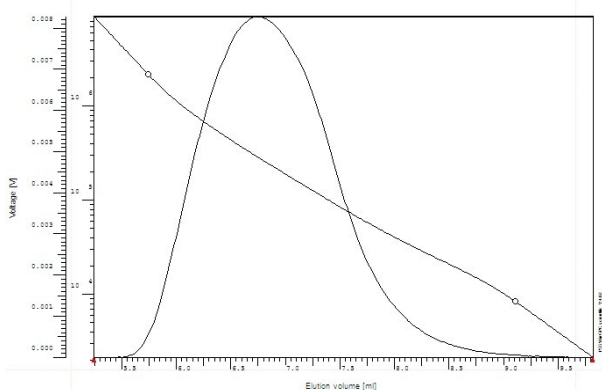
| | |
|-----------------------------|-----------------|
| narrow PDI | |
| M 100 Da - 10 000 Da: | 2 g/L |
| M 10 000 Da - 1 000 000 Da: | 1-2 g/L |
| M > 1 000 000 Da: | 0.5 g/L or less |
| broad PDI (>1.5) | |
| all molar masses: | 3.0 - 5.0 g/L |
| Injection volume [μL]: | 100 |



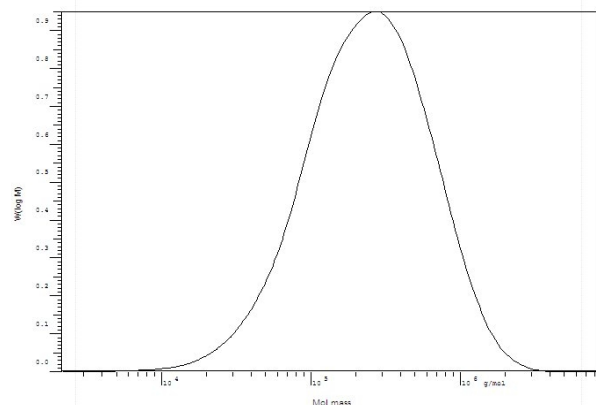
Suitable Columns

| | |
|------------------------------|--|
| low molecular weights: | P/N 201-0001 (set of 3) OR sda083003lis (1 linear) |
| medium molecular weights: | P/N 201-0002 (set of 2) OR sda083005lim (1 linear) |
| high molecular weights: | P/N 201-0003 (set of 3) OR sda083005lxl (1 linear) |
| ultrahigh molecular weights: | P/N 202-0001 (set of 3) |

Elugram and Calibration separation on PSS SDV



Molar Mass Distribution separation on PSS SDV



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RA45128.3782638889
5994-6272EN
August 1, 2023