

Highly Stable Detector Improves GPC/SEC Results

The Differential Refractive Index (DRI)

detector from Testa Analytical Solution e.K offers unmatched accuracy and reliability for determination of absolute concentration and total mass balance in Gel Permeation Chromatography / Size Exclusion Chromatography (GPC/SEC) applications



The baseline signal stability

of any liquid chromatography detector is very important, as it is a limiting factor in peak determination. Detector stability gains even more importance where analysis time is long, such as is commonly encountered in high resolution GPC/SEC applications.

Use of multiple columns

is common in GPC/SEC as a technique to increase resolution and also to increase the available dynamic range in terms of molecular weight. As such, high resolution GPC/SEC measurements can often take 30 to 60 minutes for a single separation. As a result, most HPLC detectors adapted for use in GPC/SEC will show a significant baseline drift between the beginning and end of the chromatogram thus negatively influencing the ability to accurately determine the beginning and end of sample peaks and therefore to calculate the correct polydispersity.

Operating from room temperature up to 80° C

with high thermal stability, TESTA Analytical's DRI detector has been designed with particular attention to eliminating drift. As a consequence of its unmatched baseline stability, the DRI detector delivers excellent performance for chromatographic separations of any duration.

For further information

on the **Differential Refractive Index (DRI) detector** please visit <u>https://www.testa-analytical.com/gpc-sec-chromatography.html</u> or contact Testa Analytical Solutions on +49-30-864-24076 / <u>info@testa-analytical.com</u>.



Testa Analytical Solutions e.K.

is a company dedicated to supplying the best possible instrumental solutions for characterization of polymers, particles, nanomaterials and proteins. Drawing upon over 30 years' experience of technologies serving these markets, the staff at Testa Analytical are happy to share their knowledge with researchers worldwide to help provide them with a working solution for even the most demanding applications.

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