

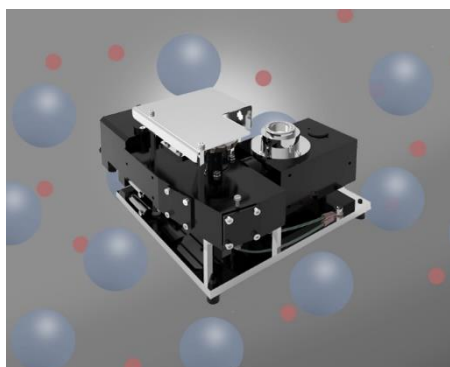
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UV Detector for High Temperature Applications

Testa Analytical Solutions e.K reports on its development of a unique high temperature UV detector for a leading European polymer research centre.

The new high temperature UV detector

is being used as part of a temperature-dependent size exclusion chromatography (TD-SEC) system to provide insights into reaction processes that were not accessible with previous methods. By measuring the size of macromolecules during polymerisation, it is now possible to obtain information about the mechanisms of attachment and cleavage of chemical bonds triggered by temperature changes and thus to better understand the thermodynamics of reactions.



Dr Carlo Dessy, Managing Director of Testa Analytical said

"Operate over a wide temperature range (25 to 200 °C) the potential applications for TD-SEC are considerable. Since essentially only changes in the size of polymers and molar mass distribution are observed, the TD-SEC technique can be used to study many polymer systems without preconditions (such as the presence of certain functional groups required by some spectroscopic methods). Using the TD-SEC technique allows researchers to determine complete molar mass distributions rather than average values. The integration of our new high-temperature UV detector into the TD-SEC system has enabled chemical composition to be determined in even greater depth".





He added

"Initial work using the TD-SEC system with high temperature UV detector has focused on the development of novel self-healing materials. In this work the researchers are investigating temperature-dependent binding mechanisms that restore the chemical structure of polymer materials after they had been damaged".

Backed by decades of experience,

Testa Analytical has created a range of high-performance GPC/SEC detectors, GPC/SEC Pumps, accessories and software products customizable to meet your exact needs. Our team of knowledgeable technical and engineering staff are available to discuss your OEM needs and to provide seamless integration of our technology into your existing or new product.

For further information

on contract OEM development of optimised GPC/SEC detectors and systems please visit www.testa-analytical.com/oem-projects.html or contact Testa Analytical Solutions on +49-30-864-24076 / info@testa-analytical.com.

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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