



PRESS RELEASE

Comparison of Mass Spectrometry Sample Preparation Methods for Nylon 6,6 Analysis

BioChromato has published a technical note that compares using Evolved Gas Analysis (EGA) and Thermal Desorption (DART®) sample preparation methods for Mass Spectrometry analysis of Nylon 6,6.

Synthesized by polycondensation of hexamethylenediamine and adipic acid – Nylon 6,6 is a polyamide or nylon that is commonly used in the textile and plastic industries. Nylon 6,6 is a polymer of choice when high mechanical strength, rigidity, good stability under heat and/or chemical resistance are required. In this new technical note the authors compare ionRocket-DART®-MS to EGA-MS for analysis of Nylon 6,6 samples.

Evolved Gas Analysis has traditionally been used as a mass spectrometry sample preparation technique for polymers, plastics, and fibres. However, analysis by EGA-MS generates fragment ions and requires a database to confirm the identity of the mass fragments.



By comparison, the authors demonstrate how using ionRocket- DART[®]/MS you can observe the parent ion without fragment ions because DART[®] is a soft ionization technique. Consequently, ionRocket- DART[®]/MS can provide qualitative analysis even if customers cannot find an objective mass fragment within their EGA/MS database.

The ionRocket is a temperature-heating device for direct thermal desorption and pyrolysis of samples, prior to ionization and analysis by mass spectrometry. Using ionRocket a temperature gradient from ambient up to 600°C can be achieved in just a few minutes. This enables polymers, plastics, and fibres to be pyrolyzed and then introduced into the DART[®]-MS gas stream.

To read this application report in full please visit <https://biochromato.com/wp-content/uploads/EI008-Nylon-66-ionRocket-vs-EGA-MS.pdf>. For further information on the ionRocket sample preparation device please visit <https://biochromato.com/analyticalinstruments/ionrocket/> or contact BioChromato Inc. on +81-466-23-8382 / enquiries@bicr.co.jp.

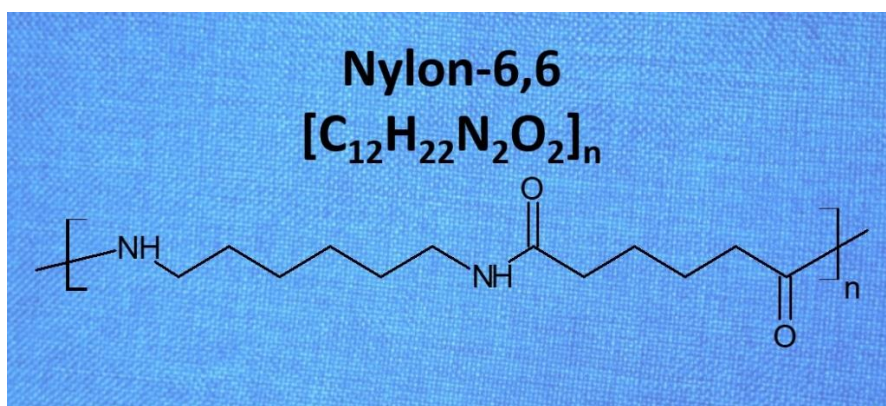
Founded in 1983, BioChromato Inc is a respected Japanese manufacturer of unique high-quality products for chemical laboratories. Through its team of experienced technical experts and network of specialist distributors - BioChromato's aim is to enhance the efficiency of research and development through its development of problem-solving laboratory instruments and consumables.



Illustrative images: (available on request)



Caption: Close-up of an ionRocket DART[®]-MS system



Caption: Structure of Nylon 6,6
