

Routine DART®-MS analysis of low solubility, high molecular weight compounds

BioChromato Inc. reports how their ionRocket sample preparation device, used in combination with Direct Analysis in Real Time Mass Spectrometry (DART®-MS), enables routine analysis of low solubility, high molecular weight compounds.



Image caption: An ionRocket DART-MS system in use and 'simple sample preparation'

Phthalocyanine based pigments

are widely used for organic semiconductors and organic electroluminescence displays due to their clearness, high light stability, and durability. However, the chemical structure of Phthalocyanine based pigments are difficult to analyze due to their high molecular weight and low solubility. The application report provides data illustrating how DART®-MS with ionRocket sample introduction enabled structural information to be determined concisely and rapidly. The analysis was done under atmospheric conditions, and without pre-treatment.

The BioChromato 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 insoluble, high molecular weight materials to be pyrolyzed and



then introduced into the DART®-MS gas stream.



Image caption: An ionRocket DART-MS system in use and 'simple sample preparation'"

To read an application report

describing this work in full please visit <u>https://biochromato.com/analyticalinstruments/ionrocket/applications/phthalocyanine-pigments/</u>

For further information

on the ionRocket sample preparation device please visit <u>https://biochromato.com/analyticalinstruments/ionrocket /</u> or contact BioChromato Inc. on +81-466-23-8382 / <u>europe@bicr.co.jp</u> / <u>northamerica@bicr.co.jp</u> and <u>enquiries@bicr.co.jp</u>



Image caption DART®-MS spectrum of titranylphthalocyanineat at 500°C DART®-SVP pre-set temperature: 400°C, ionization mode: DART® (+)



BioChromato Inc

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

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