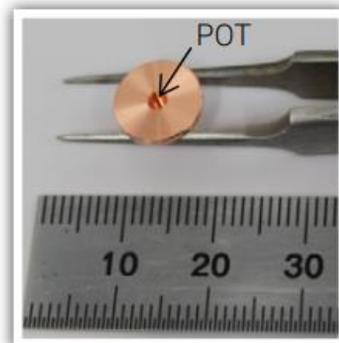


Background

Phthalocyanine based pigments are used for organic semiconductors and organic electroluminescence displays due to its clearness, high light stability, and durability. The chemical structure is difficult to analyze due to its larger molecular weight and lower solubility.

DART®-MS with ionRocket analysis provided the structural information concisely and rapidly. The analysis was done in atmospheric conditions, and without pre-treatment.



Samples

Titanyl phthalocyanine, Mmi 576.0927 Da, [M+H]⁺: 577.1003 Da.

Methods

The ionRocket was directly connected to the DART®-MS. The sample was put on the POT and analyzed. The temperature was increased by 100°C per minute from 30°C to 600°C

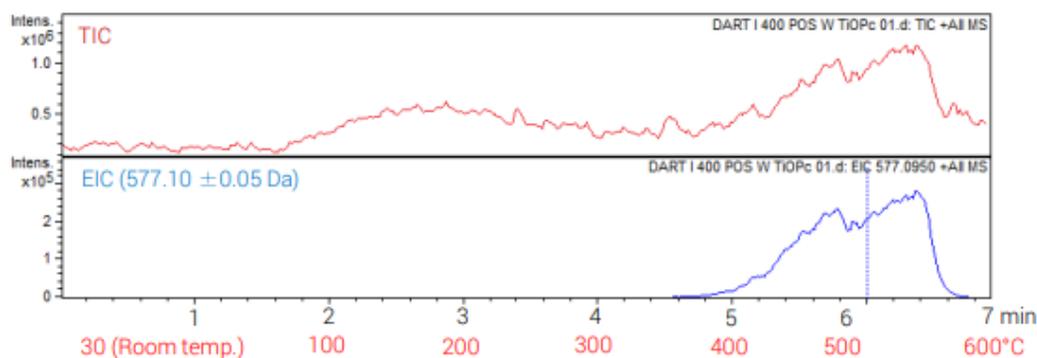


Fig.1 TIC and EIC of titanyl phthalocyanine
Room temperature 100°C/min 600°C

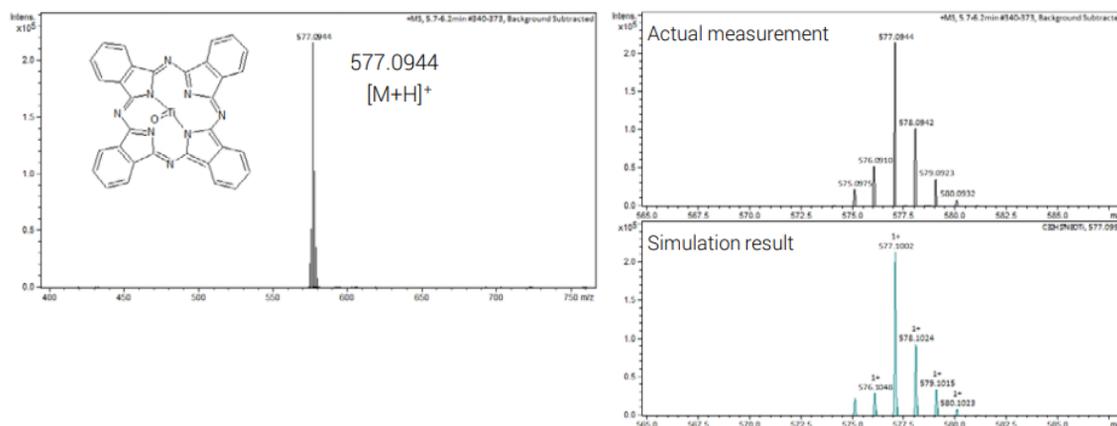


Fig. 2 DART®-MS spectrum of titanyl phthalocyanine at 500°C
DART®-SVP preset temperature: 400°C, ionization mode: DART® (+)

Target

Chemical industry, material analysis, foreign substance analysis.