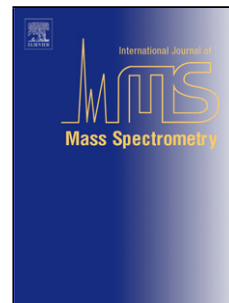


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Title: Comparison of Graphite-Assisted Laser
Desorption/Ionization and Matrix-Assisted Laser
Desorption/Ionization Fourier Transform Ion Cyclotron
Resonance Mass Spectrometry for the Analysis of Pyrolysis
Liquids

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11 **Abstract**

12 Graphite-assisted laser desorption/ionization and matrix-assisted laser
13 desorption/ionization fourier transform ion cyclotron resonance mass spec-
14 trometry (GALDI and MALDI-FT-ICR-MS) were applied in a comparative
15 study for the analysis of various pyrolysis liquids. The aim of the study was
16 the identification of differences in the ionization behavior and to determine
17 if the ionization by GALDI is harder in comparison to MALDI. To obtain
18 optimal results in terms of a high peak number, a high peak intensity and
19 no peak splitting at the same time, an optimization of the operating pa-
20 rameters for positive-ion GALDI was performed. Moreover, a preparation
21 technique for the analysis of pyrolysis liquids using positive-ion MALDI had
22 to be developed.

23 The applicability of the developed positive-ion GALDI and positive-ion

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