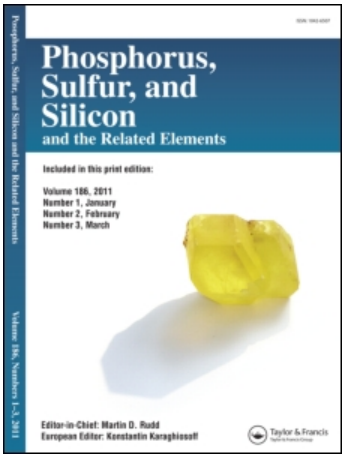

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Comparative EI, CI and FAB Mass Spectrometry of Dialkyl and Monoalkyl 2-Chloroethylphosphonates

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COMPARATIVE EI, CI AND FAB MASS SPECTROMETRY OF DIALKYL AND MONOALKYL 2-CHLOROETHYLPHOSPHONATES

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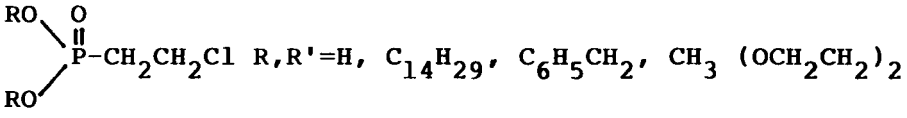
Comparison is made between electron ionization (EI), methane, isobutane and ammonia chemical ionization (CI) and fast atom bombardment (FAB) mass spectrometry of phosphonates related to 2-chloroethylphosphonic acid



The last both methods are successful in obtaining $|M+H|^+$ ions. NH_3/ICMS and FABMS give respectively $|M+NH_4|^+$, $|2M+H|^+$ and others molecular association ions, making them of a great reliability for molecular weight determination and analysis of mixtures. The significant fragmentation ions can be deduced chiefly from CI spectra as the result of neutral fragments (HCl, R, R') loss from molecular ions.
The compounds on study were synthetized from the parent 2-chloroethylphosphonic dichlorid (1).

(1) F. Plénat, I. Sanusi, H.J. Cristau, Synthesis, (11), 912 (1988).