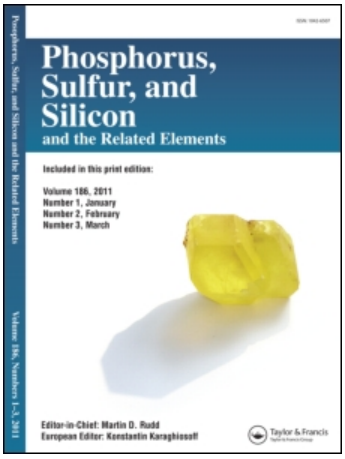

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Study of the 2-Benzimidazolylaminomethylphosphonic Acid Derivatives by Mass Spectroscopy

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STUDY OF THE 2-BENZIMIDAZOLYLAMINOMETHYLPHOSPHONIC ACID DERIVATIVES BY MASS SPECTROSCOPY

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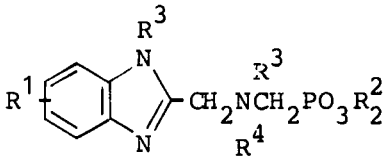
The present paper reports the mass spectra of some compounds of 2-alkylenbenzimidazolylaminomethylphosphonates with the general formula:



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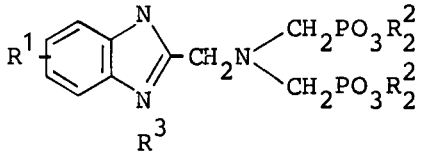

II

where R^1: H, alkyl, halogen, NO_2, SO_3H
R^2: alkyl, aryl
R^3, R^4= H, CH_3

Since the compounds R^2=R^3=H have betainic structure, their mass spectra could be investigated as a result of CH_2N_2 derivation. The basic ion common to both classes of substances is generated by McLafferty transposition which takes place at the double heterocyclic bond.

With the second class of substances we noticed a peak corresponding to the formula $CH_2PO_3R_2$. That indicates that McLafferty transpositions develop at the double P=O bond.