

含氟磷、肿叶立德的质谱研究

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摘要 本文报道37个含氟磷、肿羰基的叶立德衍生物的电子轰击(EI)和8个含氟肿羟基叶立德的甲烷化学电离(CI)正、负离子质谱. 研究其断裂规律,氧和氟原子重排以及不同取代基对一些特征离子强度的影响.

关键词 [质谱法](#) [磷](#) [有机氟化合物](#) [肿](#) [内翁盐](#)

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Mass spectra of fluorinated phosphonium and arsonium ylides

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Abstract Electron impact (EI) pos. ion mass spectra of 37 fluorinated phosphonium and arsonium ylides, and the pos. and neg. ion chem. ionization (CI) mass spectra of 8 fluorinated arsonium ylides $\text{Ph}_3\text{As}+\text{C}-(\text{COR}_1)\text{COR}_2$ ($\text{R}_1 = \text{Me}, \text{Ph}, \text{MeO}; \text{R}_2 = \text{fluoroalkyl}$), using methane as the reagent gas, were reported. Fragmentation patterns have been discussed. The cleavage mechanism of EI mass spectra of fluorinated arsonium ylides is similar to that of fluorinated phosphonium ones. In pos. ion CI mass spectra of fluorinated arsonium ylides, ions $[\text{M} + \text{H}]^+$, $[(\text{C}_6\text{H}_5)_3\text{As} + \text{H}]^+$, $(\text{C}_6\text{H}_5)_2\text{As}^+$, $[\text{M} - \text{R}_1]^+$, and $[\text{M} - \text{R}_2]^+$ are formed. Peaks such as $[(\text{C}_6\text{H}_5)_3\text{AsO} + \text{H}]^+$ and $(\text{C}_6\text{H}_5)_3\text{As}+\text{F}$ have been observed, indicating the migration of oxygen and fluorine from carbon to arsenic. The neg. ion CI mass spectra of fluorinated arsonium ylides are characterized by base peaks corresponding to loss of Ph radical.

Key words [MASS SPECTROGRAPHY](#) [PHOSPHINE](#) [ORGANO FLUORINE COMPOUNDS](#) [ARSINE](#) [YLIDE](#)

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