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Phosphorus Containing Ions with Unconventional Structure: El-Fragmentation of $\text{Et}_3\text{P}(\text{S})$

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Phosphorus Containing Ions with Unconventional Structure: EI-Fragmentation of Et₃P(S)

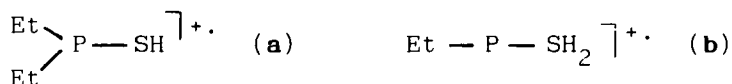
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Gas phase ion structures often do not correlate with those of their corresponding neutrals and many ions with unconventional structures have been found to be stable in the gas phase in contrast to their neutral counterparts. Thus, radical ions (a) and (b)



are formed under EI-conditions by consecutive elimination of C₂H₄ from ionized triethylphosphanesulfide Et₃P(S).

(a) contains tricoordinated phosphorus while the structure of (b) corresponds to an ionized adduct of H₂S and the "phosphinidene" Et — P. The structures have been determined on the basis of collisional activation and metastable ion spectra as well as H/D-exchange reactions. Results of semiempirical MO-calculations (MNDO) are reported.