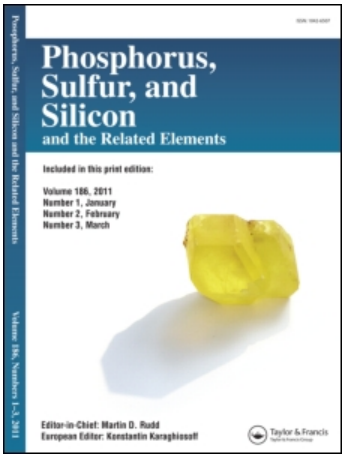

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Triphenylphosphine in Some Nucleophilic Additions to Double Bonds Containing Electrophilic Carbon

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TRIPHENYLPHOSPHINE IN SOME NUCLEOPHILIC ADDITIONS TO DOUBLE BONDS CONTAINING ELECTROPHILIC CARBON

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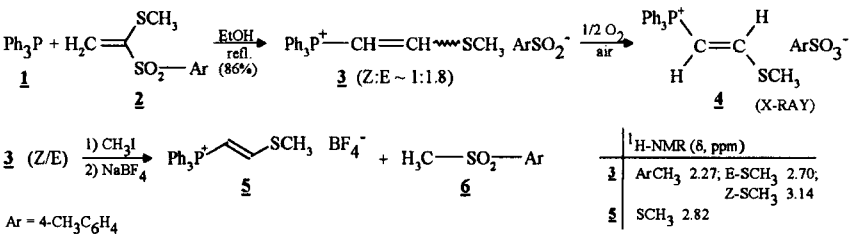
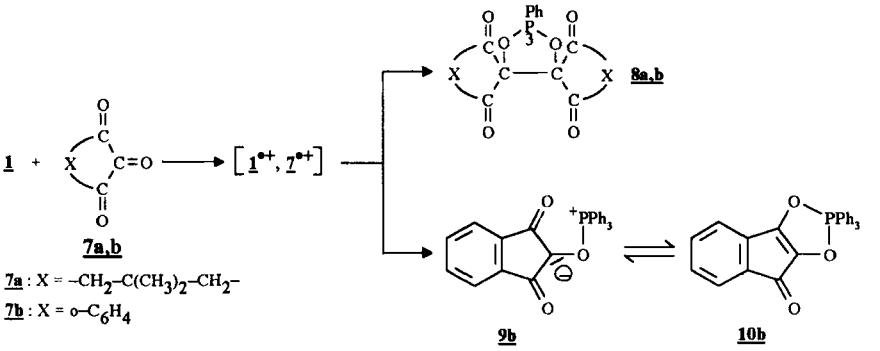
Abstract Phosphorus (III) componds like **1** possess basic and nucleophilic properties (phosphonium salt formation) as well as SET properties (i.e. reduction of peroxides). Typical examples of both reaction types are discussed in schemes I and II.



SCHEME I: *Nucleophile-Electrophile interaction between triphenylphosphine (**1**) and 1-methylthiovinyl-4-tolylsulfone (**2**) and subsequent reactions*



SCHEME II: *REDOX-Interactions of **1** with cyclic vicinal triketones **7a,b***

Oxodimedone (**7a**) and indantrione (**7b**) form 2:1-adducts with **1** via intermediate SET and apparent "Umpolung" of midstanding carbonyl carbons. Only in the case of **7b** 1.3-dipole **9b** could be observed in equilibrium with **10b**.