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# N-Acyl-and N-Phosphorylpolyhalogenoalkyl-Imidolylphosphonates: Synthesis and Reactions

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### N-Acyl-and N-Phosphorylpolyhalogenoalkyl-Imidoylphosphonates: Synthesis and Reactions

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Methods of synthesis of polyhalogenoalkylimidoyl phosphonates, the phosphorus analogs of a well-known and widely used acylimines of polyhalogenocarbonyl compounds, have been developed.

$$CI$$

$$CF_3$$

$$X = COPh, COOAlk$$

$$CF_3$$

$$X = COPh, COOAlk$$

$$CF_3$$

$$X = P(O)(OR)_2$$

$$CF_3$$

$$X = P(O)(OR)_2$$

$$CF_3$$

$$X = P(OAlk)_2$$

$$CF_3$$

$$Y = P(OAlk)_2$$

$$Y = P(OAl$$

 $R = Hlg = Cl, R' = Ph, OEt; R = H(CF_2)_3, Hlg = F, R' = OAlk$ 

Addition of various C-, N-, O-, S- and P-centered nucleophiles to activated C=N bond of imidoyl phosphonates leads to functionally substituted derivatives of aminophosphonic acids. The decisive influence of substituents in imidoyl phosphonates on their reactions with phosphites was established. The rare example of the Perkov type reaction involving trihalogenomethyl group was found.