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Fluoro-organylphosphanes Using the Reagent Combination (Et₂N)₃P/Fluoro(halo)organic Compound

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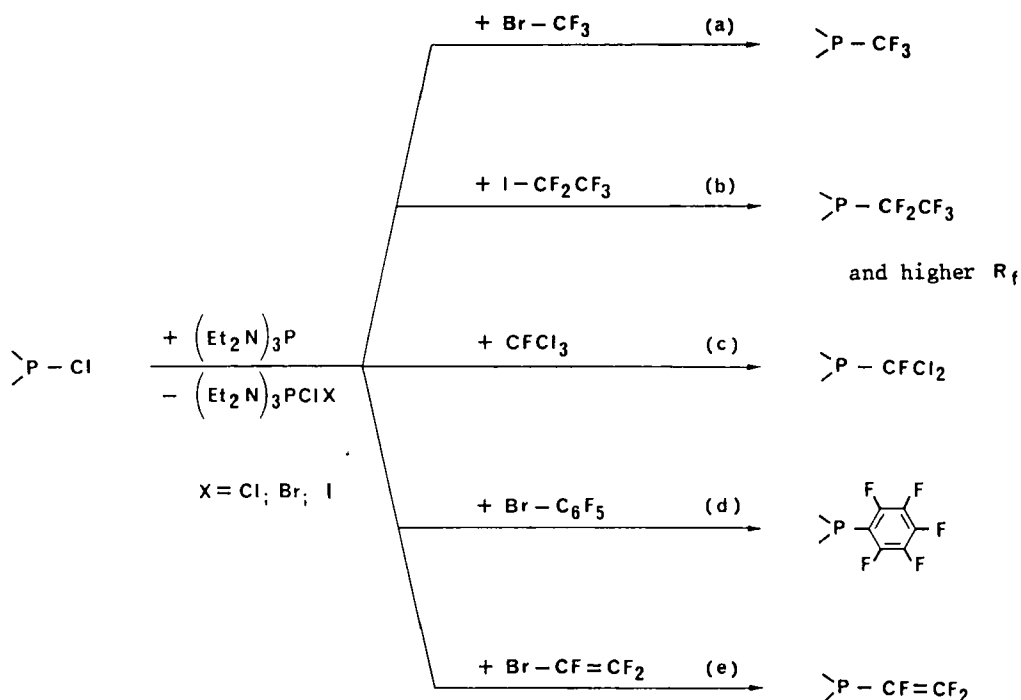
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Fluoro-organylphosphanes Using the Reagent Combination (Et₂N)₃P / Fluoro(halo)organic Compound

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We succeeded in a simple direct route with good applicability to transfer different fluoro(halo)organic moieties on chlorophosphanes e.g.: a) the CF₃-group, b) higher perfluoro-organic substituents, c) the dichlorofluoromethyl-group, d) the pentafluorophenyl-ring and finally e) the trifluorovinyl-moiety.



In general our reagent combination works very well at low temperatures, where $(\text{Et}_2\text{N})_3\text{P}$ connects phosphorus(III)-halogenides with the fluoro-organic partners under mild dehalogenation.

We try to draw your attention to this method for introducing perhaloorganyl groups; the examples give hope to a general scope.