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Sommario/riassunto

Reactivity of P-H Group of Phosphorus Based Compounds bridges the gap between inorganic and organic phosphorus compounds, providing a basis to explore the myriad possibilities for synthesis of novel low and high molecular phosphorus-containing compounds. It covers well-documented reactions in detail, including: tautomerization, oxidation, reduction, alkylation, oxidation coupling, addition reaction to: carbon-carbon multiple bonds, Schiff base, isocyanates, nitriles, epoxides; addition to carbonyl group, Kabachnik- Fields reaction, cross-coupling reaction and more. In an accessible style complete with synthetic routes and figures, the resource then covers the reactivity of multiple P-H group members: phosphines, phosphine oxides, hypophosphorus acid, H-phosphinic acids and polys(alkylene H-phosphonate). This valuable coverage supports the advancement of research and applications in this area for scientists solving a scientific problem or starting a variety of new projects, such as a new reaction for the synthesis of biologically active compounds, new methods of polymer synthesis or a new methodology for polymer modification.
