

## **Tetracoordinate phosphorus cage compounds with endocyclic P-C bonds: Synthesis and reactivity**

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### **Abstract**

© 2016, Pleiades Publishing, Ltd. The survey summarizes modern methods of synthesis and reactivity of tetracoordinated phosphorus cage compounds containing one or more endocyclic P-C bonds (phosphine oxides, phosphinates and phosphonates, phosphatripticenes and others). Intramolecular cyclization reactions including electrophilic aromatic substitution with unsaturated organophosphorus compounds, reactions of P-H-derivatives with carbonyl compounds as well as cycloaddition reactions involving I-IV-coordinated phosphorus derivatives are considered.

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### **Keywords**

cage phosphinate, cage phosphine oxide, cage phosphonate, diazaphosphole, diphosphole