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New Cyclotriphosphazenes with P-C_{Ar} Bonds

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NEW CYCLOTRIPHOSHAZENES WITH P-C_{Ar} BONDS.

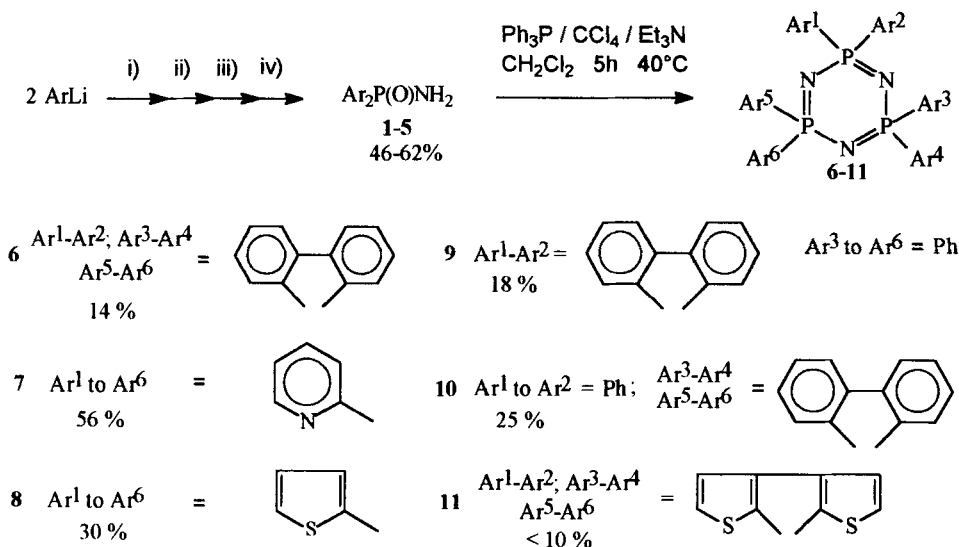
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Abstract We describe some new cyclotriphosphazenes in which the phosphorus substituents are either free rotating aromatic or heteroaromatic groups, or rigid spirobiaryl units.

Key words Arylcyclotriphosphazenes ; Phosphinamides.

As compared with cyclotriphosphazenes having P-O or P-N side groups, cyclotriphosphazenes having P-C bonds are much less currently described¹. However, both better chemical and thermal stabilities² and, in the case of spirocyclic phosphazenes, interesting physico-chemical properties, as solid-state inclusion³ or magnetic field effects, could be expected for these P-C compounds.

The new compounds 6-11 are obtained through phosphinamide precursors 1-5 which are synthesized from aryllithium species.



i) Et₂NP(O)Cl₂ or Et₂NPCl₂ then H₂O₂ ii) HCl 37% iii) PCl₅ or SO₂Cl₂ iv) NH₃ aq or gaz

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