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Synthesis and Coordination Chemistry of Novel Phosphiranes

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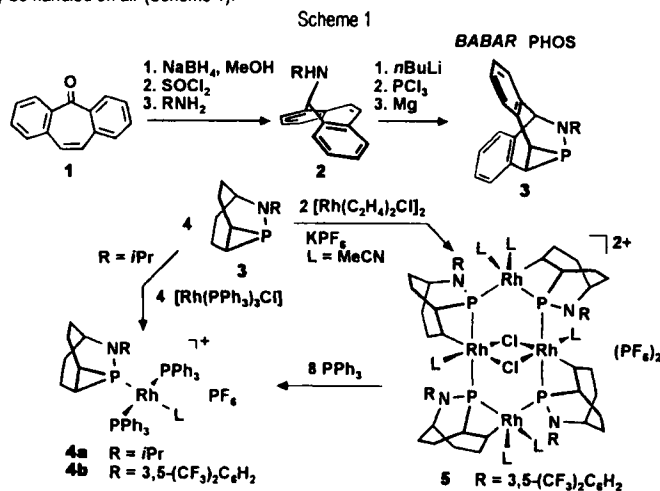
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Synthesis and Coordination Chemistry of Novel Phosphiranes

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Three-membered PC₂ heterocycles may find interesting applications in transition metal catalysis but are intrinsically unstable^[1]. We developed an efficient simple synthesis of a tricyclic phosphirane **3** (BABAR-Phos) which is indefinitely stable in substance at room temperature and may be handled on air (Scheme 1).



We prepared stable platinum(0) and rhodium(I) complexes like **4a,b** and cluster **5**. Upon addition of Ph₃P to **5**, reformation of the PC₂ cycles to give **4b** is observed.

Acknowledgments

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