

H-spirophosphoranes-promising ligands in transition metal chemistry, an outlook of their coordination and catalytic properties.

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The paper gives a short survey on the coordination properties of H-spirophosphoranes towards transition metals. The emphasis is on the application of H-spirophosphorane complexes in catalysis. Spirophosphoranes supported by transition metals, palladium or rhodium, have been identified as ligands in metal-catalysed enantioselective catalysis; connected to palladium centres, they exhibit catalytic properties in cross-coupling reactions. Rhenium complexes incorporating spirophosphoranes appear to act as excellent co-catalysts in oxidation reactions. It is demonstrated how fine tuning within the structure of phosphorus ligands can determine the catalytic properties of transition metal complexes.

Słowa kluczowe

H-spirophosphoranes, Phosphorus ligands, Transition metal complexes, Catalysis, Oxidation reaction, Cross-coupling

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