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## Phosphorus, Sulfur, and Silicon and the Related Elements

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## New Heterodonor Phosphine Ligands

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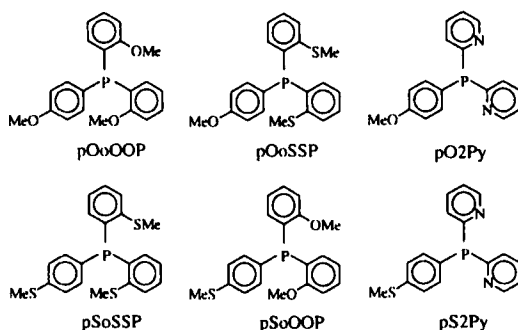
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## New Heterodonor Phosphine Ligands

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In our studies we have synthesized three novel mixed *ortho*- and -*para* substituted phenyl phosphines: pSoOOP, pOoSSP and pSoSSP and a new phosphine containing pyridyl units: pS2Py. Also pOoOOP and pO2Py, which have been previously mentioned in patent literature<sup>[1-2]</sup>, were prepared.



In general,  $PPh_3$  type ligands play the role of stabilising the catalyst. The added functionality of the different substituent groups in the phenyl rings has been realised to affect strongly to the catalytic activity and selectivity. Replacement of phenyl rings with the pyridyl ring produces a new class of catalysts that can be separated from reaction mixtures via phase separation.<sup>[3]</sup>

### References

- [1] E.N Squire *et. al.* US 4 292 437.
- [2] E. Drent GB 2 240 545.
- [3] A.S.C. Chan *et. al.* *Organometallics*, **16**, 3469, (1997).