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## Hydrogenation of Biphenyl over Charcoal-supported Metal Catalysts under Supercritical Carbon Dioxide

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Charcoal-supported rhodium and ruthenium catalysts were active and selective for the hydrogenation of biphenyl to bicyclohexyl at low temperature (323 K) under supercritical carbon dioxide. The conversion of biphenyl hydrogenation increased with increase in carbon dioxide pressure and hydrogen pressure. From the beginning of reaction, cyclohexylbenzene and bicyclohexyl were formed and finally >95% yield of bicyclohexyl was obtained over the both catalysts.

**Keywords:** [Biphenyl hydrogenation](#), [Supercritical carbon dioxide](#), [Hydrogen storage](#), [Rhodium charcoal catalyst](#)



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