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(54) Abstract Title: **Supported ruthenium nanoparticle catalyst for CIS- dihydroxylation and oxidative cleavage of alkenes**

(57) The present invention relates to the use of nanosized metal particles (e.g., ruthenium) grafted on inert solid support for oxidation of alkenes. The supported metal catalyst can effect cis-dihydroxylation and oxidative cleavage of alkenes to give the respective cis-diols and carbonyl products.

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