Materials & Chemicals

Enhanced Dispersion Of Two-Dimensional Metal Oxide Surface Species On Silica Using An Alkali Promoter

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The Invention

Improved catalysts including two-dimensional metal oxide species highly dispersed on a silica support are disclosed, as well methods of making and using such catalysts. The catalysts are substantially free of metal oxide nanoparticles. The higher than expected maximum dispersion densities are obtained in the catalysts by introducing dispersion-promoting sodium ions, and optionally, aluminum ions, onto the silica support. The improved catalysts may be used in a variety of chemical processes, including, without limitation, in dehydrogenation, oxidation, and metathesis reactions.

Additional Information

For More Information About the Inventors

- Ive Hermans

Tech Fields

- Materials & Chemicals : Composites
- Materials & Chemicals : Synthesis

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854