

# An egg-shell bifunctional CeO<sub>2</sub>-modified NiPd/Al<sub>2</sub>O<sub>3</sub> catalyst for petrochemical processes involving selective hydrogenation and hydroisomerization

[An egg-shell bifunctional CeO<sub>2</sub>-modified NiPd/Al<sub>2</sub>O<sub>3</sub> catalyst for petrochemical processes involving selective hydrogenation and hydroisomerization – ScienceDirect](https://www.sciencedirect.com/science/article/abs/pii/S1002072120304105)

The screenshot shows a web browser window displaying the ScienceDirect article page. The browser's address bar shows the URL: <https://www.sciencedirect.com/science/article/abs/pii/S1002072120304105>. The page features the Elsevier logo and a search bar. On the left, there is a navigation menu with links for 'Article preview', 'Abstract', 'Introduction', 'Section snippets', 'References (32)', and 'Recommended articles (6)'. The main content area displays the article title: 'An egg-shell bifunctional CeO<sub>2</sub>-modified NiPd/Al<sub>2</sub>O<sub>3</sub> catalyst for petrochemical processes involving selective hydrogenation and hydroisomerization'. Below the title, the authors are listed: Franklin J. Méndez, Javier A. Alves, Yahsé Rojas-Challa, Oscar Corona, Yanet Villasana, Julia Guerra, Germán García-Collí, Osvaldo M. Martínez, and Joaquín L. Brito. The abstract text begins with: 'The catalytic performance during the 1-butene hydrogenation using two reduced Al<sub>2</sub>O<sub>3</sub>-supported Pd-based catalysts was carried out in a total recirculation system with an external fixed-bed reactor. The lab-prepared egg-shell NiPd/CeO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> catalyst (NiPdCe) with Pd loading=0.5wt%, Ni/Pd atomic ratio=1 and CeO<sub>2</sub> loading=3wt% was synthesized and characterized, and it was compared with an egg-shell Al<sub>2</sub>O<sub>3</sub>-supported Pd based commercial catalyst (PdCC). The reduced catalysts were characterized by X-ray diffraction, X-ray photoelectron spectroscopy, and high-resolution transmission electron microscopy. The textural characteristics and ammonia temperature-programmed...'. The Windows taskbar at the bottom shows the system clock as 11:43 a.m. on 13/04/2023.