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(54) **SULFUR-TOLERANT CATALYST SYSTEMS**

(75) Inventors: **Vincent L. Sprenkle**, Richland, WA (US); **Kerry D. Meinhardt**, Kennewick, WA (US); **Lawrence A. Chick**, West Richland, WA (US); **Jin Yong Kim**, Richland, WA (US)

(73) Assignee: **Battelle Memorial Institute**, Richland, WA (US)

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See application file for complete search history.

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*Primary Examiner*—Timothy C Vanoy
*Assistant Examiner*—Michelle Hou
(74) *Attorney, Agent, or Firm*—Allan C. Tuan

(57) **ABSTRACT**

Methods for improving the sulfur-tolerance of nickel-based catalyst systems, as well as the improved catalyst systems, are disclosed. The methods can include adding praseodymium alone, or in combination with ruthenium and/or cerium, to a nickel-based catalyst system, thereby inhibiting sulfur poisoning of the catalyst system. Improved catalyst systems can have an added amount of praseodymium alone, or in combination with ruthenium and/or cerium, sufficient to inhibit poisoning of the system by sulfur.

**8 Claims, 2 Drawing Sheets**