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(54) **CATALYST, METHOD OF MAKING, AND REACTIONS USING THE CATALYST**

(75) Inventors: **Anna Lee Y. Tonkovich**, Pasco, WA (US); **Yong Wang**, Richland, WA (US); **Yufei Gao**, Kennewick, WA (US)

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

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 494 days.

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Primary Examiner—N. Bhat
(74) *Attorney, Agent, or Firm*—Derek Maughan; Frank Rosenberg

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(52) **U.S. Cl.** **422/190**; 422/198; 422/211; 422/222; 423/659; 29/890

(57) **ABSTRACT**

(58) **Field of Classification Search** 422/177, 422/173, 190, 198, 211, 222; 423/659; 29/890
See application file for complete search history.

The present invention includes a catalyst having a layered structure with, (1) a porous support, (2) a buffer layer, (3) an interfacial layer, and optionally (4) a catalyst layer. The invention also provides a process in which a reactant is converted to a product by passing through a reaction chamber containing the catalyst.

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45 Claims, 4 Drawing Sheets

