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(54) **PLATINUM ORGANOMETALLIC COMPLEX
FUNCTIONALIZED AMINE-MODIFIED
FIBROUS HIERARCHICAL ZEOLITE AND
METHOD OF MAKING THE SAME**

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(57) **ABSTRACT**

A functionalized fibrous hierarchical zeolite includes a framework comprising aluminum atoms, silicon atoms, and oxygen atoms, the framework further comprising a plurality of micropores and a plurality of mesopores. The functionalized fibrous hierarchical zeolite is functionalized with at least one terminal amine bonded to a silicon atom. Terminal organometallic functionalities are bonded to a nitrogen atom of the at least one terminal amine, the terminal organometallic functionalities comprising a platinum atom.

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