



US 20230159343A1

(19) **United States**

(12) **Patent Application Publication**  
**Hodgkins et al.**

(10) **Pub. No.: US 2023/0159343 A1**

(43) **Pub. Date: May 25, 2023**

(54) **MODIFIED ZEOLITES THAT INCLUDE  
TITANIUM-CONTAINING  
ORGANOMETALLIC MOIETIES AND  
METHODS FOR MAKING SUCH**

*B01J 35/02* (2006.01)  
*B01J 37/16* (2006.01)  
*B01J 37/02* (2006.01)  
*C01B 39/02* (2006.01)

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(52) **U.S. Cl.**  
CPC ..... *C01B 39/40* (2013.01); *B01J 29/405*  
(2013.01); *B01J 35/1061* (2013.01); *B01J*  
*35/1066* (2013.01); *B01J 35/023* (2013.01);  
*B01J 37/16* (2013.01); *B01J 37/0203*  
(2013.01); *C01B 39/026* (2013.01); *C01P*  
*2004/64* (2013.01); *C01P 2002/72* (2013.01);  
*C01P 2004/04* (2013.01); *C01P 2004/03*  
(2013.01); *C01P 2002/82* (2013.01); *C01P*  
*2002/86* (2013.01); *C01P 2006/16* (2013.01);  
*C01P 2004/62* (2013.01)

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(57) **ABSTRACT**

(21) Appl. No.: **18/101,923**

(22) Filed: **Jan. 26, 2023**

**Related U.S. Application Data**

(62) Division of application No. 17/230,500, filed on Apr.  
14, 2021, now Pat. No. 11,591,229.

**Publication Classification**

(51) **Int. Cl.** (2006.01)  
*C01B 39/40* (2006.01)  
*B01J 29/40* (2006.01)  
*B01J 35/10* (2006.01)

Disclosed herein are modified zeolites and methods for making modified zeolites. In one or more embodiments disclosed herein, a modified zeolite may include a microporous framework comprising a plurality of micropores having diameters of less than or equal to 2 nm. The microporous framework may include at least silicon atoms and oxygen atoms. The modified zeolite may further include organometallic moieties each bonded to bridging oxygen atoms. The organometallic moieties may include a titanium atom. The titanium atom may be bonded to a bridging oxygen atom, and the bridging oxygen atom may bridge the titanium atom of the organometallic moiety and a silicon atom of the microporous framework.

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