

04119.000100.36

REEXAMINATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In *Inter Partes* Reexamination of:)
IVOR BULL ET AL.) : Examiner: Unassigned
Patent No. 7,601,662) : Group Art Unit: Unassigned
Issued: October 13, 2009) :
For: COPPER CHA ZEOLITE CATALYSTS) :
September 28, 2010

Mail Stop *Inter Partes* Reexamination

Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR *INTER PARTES* REEXAMINATION

Sir:

Pursuant to 35 U.S.C. §§ 311 through 318 and 37 C.F.R. §§ 1.902 through 1.997, *inter partes* reexamination is requested of United States Patent No. 7,601,662 ("the '662 Patent"), which issued on October 13, 2009, in the name of Ivor Bull et al.

TABLE OF CONTENTS

| | | |
|------|--|----|
| I. | IDENTIFICATION OF EVERY CLAIM FOR WHICH REXAMINATION IS REQUESTED..... | 1 |
| II. | The '662 Patent | 1 |
| | A. The Background of the '662 Patent | 1 |
| | B. The Prosecution History of the '662 Patent..... | 4 |
| III. | RELATED LITIGATION | 7 |
| IV. | CERTIFICATIONS | 7 |
| | A. Real Party of Interest | 7 |
| | B. No Estoppel Exists..... | 7 |
| V. | PRIOR ART AS BASIS FOR REEXAMINATION | 7 |
| | A. U.S. Patent Application Pub. No. 2006/0115403 (Yuen)..... | 8 |
| | B. U.S. Patent No. 4,297,328 (Ritscher et al.)..... | 8 |
| | C. U.S. Patent No. 6,709,644 (Zones et al.) | 9 |
| | D. Ishihara, T. et al., Copper Ion-Exchanged SAPO-34 as a Thermostable Catalyst for Selective Reduction of NO with C ₃ H ₆ , Journal of Catalysis, vol. 169, pp. 93-102 (1997) (Ishihara et al.) | 9 |
| | E. U.S. Patent Application Pub. No. 2006/0039843 (Patchett et al.)..... | 9 |
| | F. U.S. Patent Application Pub. No. 2005/0031514 (Patchett '514) | 10 |
| | G. U.S. Patent Application Pub. No. 2004/0098973 (Tennison et al.)..... | 10 |
| | H. U.S. Patent Application Pub. No. 2004/0171476 (Nam et al.)..... | 10 |
| | I. Dědeček, J. et al., Siting of the Cu ⁺ Ions in Dehydrated Ion Exchanged Synthetic and Natural Chabasites: A Cu ⁺ Photoluminescence Study, Microporous and Mesoporous Materials, vol. 32, pp. 63-74 (1999) (Dědeček et al.)..... | 10 |
| | J. Chung, S.Y. et al., Effect of Si/Al Ratio of Mordenite and ZSM-5 Type Zeolite Catalysts on Hydrothermal Stability for NO Reduction by Hydrocarbons, Studies in Surface Science and Catalysis, vol. 130, pp. 1511-1516 (2000) (Chung et al.)..... | 11 |

| | | |
|-----|---|----|
| VI. | STATEMENT UNDER 37 C.F.R. § 1.510(B)(1) POINTING OUT SUBSTANTIAL NEW QUESTIONS OF PATENTABILITY AND DETAILED EXPLANATION UNDER 37 C.F.R. § 1.510(B)(2) OF THE PERTINENCY AND MANNER OF APPLYING THE CITED PRIOR ART..... | 11 |
| A. | Claim 1 is unpatentable under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Pub. No. 2006/0115403 (Yuen) including the disclosure incorporated by reference from U.S. Patent No. 4,297,328 (Ritscher et al.)..... | 12 |
| B. | Claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Application Pub. No. 2006/0115403 (Yuen) in view of U.S. Patent No. 4,297,328 (Ritscher et al.)..... | 16 |
| C. | Claims 1-11 are unpatentable under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,709,644 (Zones et al.) in view of Ishihara, T. et al., Copper Ion-Exchanged SAPO-34 as a Thermostable Catalyst for Selective Reduction of NO with C ₃ H ₆ , Journal of Catalysis, vol. 169, pp. 93-102 (1997) (Ishihara et al.) | 18 |
| | 1. Claims 12-32 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Zones et al. in view of Ishihara et al. and further in view of U.S. Patent Application Pub. No. 2006/0039843 (Patchett et al.) | 25 |
| | 2. Claims 33, 34 and 36-38 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Zones et al. in view of Ishihara et al. and further in view of U.S. Patent Application Pub. No. 2005/0031514 (Patchett '514)..... | 33 |
| | 3. Claim 35 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Zones et al. in view of Ishihara et al. and further in view of U.S. Patent Application Pub. No. 2004/0098973 (Tennison et al) | 35 |
| D. | Claims 1-11 are unpatentable under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,709,644 (Zones et al.) in view of U.S. Patent Application Pub. No. 2004/0171476 (Nam et al.) | 37 |
| | 1. Claims 12-32 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Zones et al. in view of Nam et al. and further in view of U.S. Patent Application Pub. No. 2006/0039843 (Patchett et al.) | 44 |
| | 2. Claims 33, 34 and 36-38 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Zones et al. in view of Nam | |

| | | |
|------|--|----|
| | et al. and further in view of U.S. Patent Application Pub. No. 2005/0031514 (Patchett '514)..... | 51 |
| 3. | Claim 35 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Zones et al. in view of Nam et al. and further in view of U.S. Patent Application Pub. No. 2004/0098973 (Tennison et al) | 54 |
| E. | Claims 1-11 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Dědeček, J. et al., Siting of the Cu ⁺ Ions in Dehydrated Ion Exchanged Synthetic and Natural Chabasites: A Cu ⁺ Photoluminescence Study, Microporous and Mesoporous Materials, vol. 32, pp. 63-74 (1999) (Dědeček et al.) in view of Chung, S.Y. et al., Effect of Si/Al Ratio of Mordenite and ZSM-5 Type Zeolite Catalysts on Hydrothermal Stability for NO Reduction by Hydrocarbons, Studies in Surface Science and Catalysis, vol. 130, pp. 1511-1516 (2000) (Chung et al.)..... | 55 |
| 1. | Claims 12-32 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Dědeček et al. in view of Chung et al. and further in view of U.S. Patent Application Pub. No. 2006/0039843 (Patchett et al.) | 61 |
| 2. | Claims 33, 34 and 36-38 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Dědeček et al. in view of Chung et al. and further in view of U.S. Patent Application Pub. No. 2005/0031514 (Patchett '514) | 68 |
| 3. | Claim 35 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Dědeček et al. in view of Chung et al. and further in view of U.S. Patent Application Pub. No. 2004/0098973 (Tennison et al) | 71 |
| VII. | CONCLUSION..... | 72 |

APPENDIX

- Copy of U.S. Patent No. 7,601,662 (patent to be reexamined)
- Exhibit A (D.W. Breck, Zeolite Molecular Sieves: Structure, Chemistry, and Use, pp. 4-5, 493, 536 (John Wiley & Sons, Inc.) (1974))
- Exhibit B (R. M. Heck, et al., Catalytic Air Pollution Control: Commercial Technology, p. 15 (2d ed., John Wiley & Sons, Inc.) (2002))
- Exhibit C (Chung, S.Y. et al., Effect of Si/Al Ratio of Mordenite and ZSM-5 Type Zeolite Catalysts on Hydrothermal Stability for NO Reduction by Hydrocarbons, Studies in Surface Science and Catalysis, vol. 130, pp. 1511-1516 (2000))
- Exhibit D (Ishihara, T. et al., Copper Ion-Exchanged SAPO-34 as a Thermostable Catalyst for Selective Reduction of NO with C₃H₆, Journal of Catalysis, vol. 169, pp. 93-102 (1997))

- Exhibit E (Dědeček, J. et al., Siting of the Cu⁺ Ions in Dehydrated Ion Exchanged Synthetic and Natural Chabasites: A Cu⁺ Photoluminescence Study, Microporous and Mesoporous Materials, vol. 32, pp. 63-74 (1999))
- Exhibit F (January 13, 2009 Office Action)
- Exhibit G (May 28, 2009 Supplemental Amendment)
- Exhibit H (July 31, 2009 Notice of Allowability)
- Exhibit I (*Telemac Cellular Corp. v. Topp Telecom, Inc.*, 247 F.3d 1316, 58 U.S.P.Q.2d 1545 (Fed. Cir. 2001))
- Exhibit J (Declaration by Gabriele Centi, Ph.D., under 37 C.F.R. § 1.132)
- Certificate of Service

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.