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学歴

2003-2006	大阪大学大学院基礎工学研究科 博士後期課程
2002-2003	大阪大学大学院基礎工学研究科 博士前期課程
1998-2002	大阪大学基礎工学部 化学応用科学科

職歴

2017-present	東京工業大学物質理工学院応用化学系 准教授
2017-present	JST さきがけ 研究者 (兼任)
2016-2017	東京工業大学物質理工学院応用化学系 講師
2008-2016	東京工業大学大学院総合理工学研究科化学環境学専攻 講師
2006-2008	東京大学大学院理学系研究科 助手 / 助教
2005-2006	日本学術振興会特別研究員 (DC2&PD)

受賞

2016	平成 28 年度 東工大挑戦的研究賞
2016	平成 27 年度 日本化学会進歩賞
2014	日本化学会第 94 春季年会 若い世代の特別講演会証
2014	平成 25 年度 触媒学会奨励賞
2013	第 111 回触媒討論会 若手優秀講演賞

2011 公益財団法人宇部興産学術振興財団 第 52 回学術奨励賞
2006 第 6 回 GSC シンポジウム GSC ポスター賞

招待講演・依頼講演

1. **本倉健**・金田清臣 「高機能不均一系触媒を用いる one-pot 反応系の開発 ―効率的化学プロセスの構築を目指して―」
第 11 回関西地区分離技術講演会、大阪、2005 年 11 月
2. **Ken Motokura** “Multifunctional Heterogeneous Catalyses of Organic Amines Immobilized on Silica-Alumina Surfaces for Efficient Nucleophilic Addition Reactions”
4th International Symposium of BK21 Chemistry & Molecular Engineering Division and 16th International Symposium of SNU-UT-NTU Chemistry Departments, Seoul, Korea, 1 February 2008.
3. **本倉健** 「多機能集積型固体触媒を用いる液相有機反応」
第 20 回フレッシュマンゼミナール、東京、2009 年 5 月 23 日
4. **本倉健** 「酸・塩基両機能触媒を用いる不均一系有機反応」
岩澤コンファレンス「サステイナブル社会のための最先端触媒化学・表面科学」、東京、2009 年 5 月 30 日
5. **本倉健**・岩澤康裕 「プロトン交換モンモリロナイト層間での酸塩基両機能創出と連続触媒反応への応用」
第 53 回粘土科学討論会、盛岡（岩手大学）、2009 年 9 月 10 日
6. **本倉健** 「固体酸表面で形成される活性シリル種を用いたアリル化反応」
第 292 回触媒化学研究センターコロキウム、札幌、2010 年 2 月 28 日
7. **本倉健** 「シリカアルミナ固定化有機アミンの酸・塩基両機能触媒作用」
第 91 回春季年会、神奈川、2011 年 3 月 26 日～29 日
8. **Ken Motokura** “Active Si Species on Inorganic Solid Acid Surface for Catalytic Carbosilylations”
The Fifth International Conference on the Science and Technology for Advanced Ceramics (STAC-5) and The 2nd International Conference on Advanced Materials Development and Integration of Novel Structured Metallic and Inorganic Materials (AMDI2), Yokohama, Japan, 22-24 June 2011.
9. **本倉健** 「酸・塩基両機能固体触媒表面を利用する常圧二酸化炭素とエポキシドからの環状カーボネート合成」
CO₂ の科学的有効利用技術の最新動向 ～二酸化炭素の原料化・燃料化の現状と今後の展望～
(技術情報センター セミナー) 東京、2011 年 7 月 15 日
10. **Ken Motokura**, Shigekazu Matsunaga, Akimitsu Miyaji, Toshihide Baba “Formation of Active Si Species on Solid Acid Surfaces for Catalytic Carbosilylations of Alkenes and Alkynes”
14th Asian Chemical Congress (14th ACC), Bangkok, Thailand, 5-8 September 2011.
11. **本倉健** 「固体酸触媒によるシリル基の活性化を利用したカルボシリル化反応」

第 108 回触媒討論会、北見、2011 年 9 月 20-22 日

12. **本倉健**「カルボシリル化反応における固体酸表面活性シリル種の触媒作用」
高資源循環ポリマー研究センター 第 3 回セミナー 「触媒化学の最前線 ～モノマー合成へ向けて～」、北陸先端科学技術大学院大学 高資源循環ポリマーセンター、2011 年 11 月 25 日
13. **Ken Motokura** “Formation of active Si species on solid acid surfaces for catalytic allylsilylations”
International Symposium and the Third Iwasawa Conference on Catalysis and Surface Science for Efficient Utilization of Carbon Resources and Related Topics, Xiamen, China, 2-5 December 2011,
14. **Ken Motokura**, Daiki Kashiwame, Akimitsu Miyaji, Toshihide Baba “Copper-Catalyzed Transformation of Carbon Dioxide to Formic Acid in the Presence of Hydrosilanes”
17th Malaysian Chemical Congress (17MCC), Kuala Lumpur, Malaysia, 15-17 October 2012
15. **Ken Motokura**, Hiroto Noda, Akimitsu Miyaji, Toshihide Baba “Pd Complex-Organic Base Synergistic Catalysis on a SiO₂ Surface for the Tsuji-Trost Reaction”
International Symposium on Catalysis and Fine Chemicals 2013, Beijing, China, 1-5 December 2013
16. **本倉 健** 「NMR による触媒材料の構造・触媒反応機構の解明」
よこはま NMR 構造生物学会 第 48 回ワークショップ：「材料の NMR」2014 年 1 月 10 日、横浜
17. **本倉 健** 「無機酸化物表面への有機官能基固定化による協同触媒作用の創出」
触媒学会西日本支部 近畿地区講演会「有機無機ハイブリッド系触媒材料の新展開」2014 年 1 月 20 日、大阪
18. **本倉 健** 「固体表面での協同触媒作用の創出と有機合成反応への展開」
日本化学会第 94 春季年会 若い世代の特別講演会 2014 年 3 月 27-30 日、名古屋
19. **本倉 健** 「有機ケイ素化合物を用いる触媒活性点構造の構築と有機合成反応への応用」(触媒学会奨励賞受賞講演)
第 114 回触媒討論会 2014 年 9 月 25 日(木)～27 日(土)、広島
20. **Ken Motokura**, Naoki Takahashi, Akimitsu Miyaji, Toshihide Baba “Scope and Mechanism of N-Formylation of Amines under 1 atm of CO₂ Catalyzed by Copper-Diphosphine Complexes with Hydrosilanes”
Vietnam Malaysia International Chemical Congress, Hanoi, Vietnam, 8-10 November 2014
21. **本倉 健** 「有機合成反応のための不均一系触媒作用の創出」
平成 26 年度「触媒学会・触媒工業協会交流サロン」若手研究者による話題提供 2014 年 12 月 12 日、東京
22. **本倉 健** 「固体表面で構築される触媒活性点構造を利用した有機反応の促進」
第 17 回 産業技術総合研究所 触媒化学融合研究センター講演会、つくば、2015 年 2 月 6 日
23. **本倉 健** 「ワンポット合成に向けた表面協奏効果を発現する活性点集積型触媒の開」(日本化学会進歩賞受賞講演)

日本化学会 第 96 春季年会、京都、2016 年 3 月 24-27 日

24. **本倉 健**「固定化錯体触媒の XAFS による構造解析と協同触媒作用の解明」

第 10 回九州シンクロトロン光研究センター研究成果報告会、鳥栖、2016 年 8 月 3 日

25. **本倉 健**「活性点集積型触媒による高効率有機反応」

第 1 回東日本キャタリシスセミナー、福島、2016 年 9 月 15-17 日

26. **Ken Motokura** “Multi-Active Site Catalysts for Heterogeneous and Homogeneous Concerted Catalysis Aimed at Efficient Organic Reactions”

The 66th JSCC Symposium, Challenges for dream catalysis - Design of catalytically active centers from the concept of coordination, Fukuoka, Japan, 10-12 September 2016.

27. **本倉 健**「固体表面への触媒活性点集積による協奏効果の発現」

第 8 回岩澤コンファレンス「サステイナブル社会のための最先端触媒化学・表面科学」、名古屋、2016 年 12 月 5-6 日

28. **Ken Motokura** “Concerted Catalysis between Metal Complex and Organic Function Immobilized on Same SiO₂ Surface”

International Symposium on Catalysis and Fine Chemicals 2016 (C&FC2016), Taipei, 10-14 November 2016.

29. **本倉 健**「固体表面での協奏的触媒作用を指向した活性点集積型反応場の構築」

新学術領域研究「精密制御反応場」第 2 回公開シンポジウム、名古屋、2017 年 1 月 25-26 日

30. **本倉 健**「活性点集積型触媒のコンセプトに基づく高効率物質変換反応の開発」

第 4 回学院横断物質科学研究会（東京工業大学物質理工学院）、東京、2017 年 5 月 25 日

31. **本倉 健**「金属錯体・有機官能基の固体表面集積による協奏的触媒作用の発現」

首都大学東京 化学コースコロキウム、東京、2017 年 6 月 30 日

32. **Ken Motokura** “Supported Palladium Complex Catalyst for Allylation Reaction Accelerated by Tertiary Amine in Mesopore”

The International Symposium on Pure & Applied Chemistry (ISPAC) 2017, Ho Chi Minh City, 8-10, June 2017.

33. **Ken Motokura** “Concerted Catalysis on Surface for Efficient Organic Synthesis”

2017 Workshop of Taiwan Tech and Tokyo Tech, Taipei, 25-27, September, 2017. (Invited)

34. **Ken Motokura** “Multifunctionalized solid surface possessing metal complexes and organic groups for creation of novel catalysis”

Swedish-Japanese Workshop on Nano-Structure Science by Novel Light Sources, Lund, Sweden, 2-3, October, 2017. (Invited)

35. **本倉 健**

「固体表面での協奏的触媒作用を利用した高効率有機合成反応の開発」（依頼講演）

第 3 回 JACI / JST 交流セミナー 「革新的触媒」（さきがけ）& 「先導的物質変換領域」（ACT-C）研究者との集い、東京、2018 年 3 月 8 日

36. **本倉 健**

「Concerted Catalysis of Metal Complex on Solid Surface for Efficient Organic Reaction」（依頼

講演)

日本化学会第 98 春季年会 アジア国際シンポジウム、船橋、2018 年 3 月 20-23 日

投稿論文（査読有）

1. Ken Motokura, Daisuke Nishimura, Kohsuke Mori, Tomoo Mizugaki, Kohki Ebitani, and Kiyotomi Kaneda
“A Ruthenium-Grafted Hydrotalcite as a Multifunctional Catalyst for Direct α -Alkylation of Nitriles with Primary Alcohols”
Journal of the American Chemical Society, **2004**, 126, 5662-5663.
2. Ken Motokura, Tomoo Mizugaki, Kohki Ebitani, and Kiyotomi Kaneda
“Multifunctional Catalysis of a Ruthenium-Grafted Hydrotalcite: One-Pot Synthesis of Quinolines from 2-Aminobenzyl Alcohol and Various Carbonyl Compounds via Aerobic Oxidation and Aldol Reaction”
Tetrahedron Letters, **2004**, 45, 6029-6032.
3. Ken Motokura, Noriaki Fujita, Kohsuke Mori, Tomoo Mizugaki, Kohki Ebitani, and Kiyotomi Kaneda
“An Acidic Layered Clay Is Combined with A Basic Layered Clay for One-Pot Sequential Reactions”
Journal of the American Chemical Society, **2005**, 127, 9674-9675.
4. Ken Motokura, Noriaki Fujita, Kohsuke Mori, Tomoo Mizugaki, Kohki Ebitani, and Kiyotomi Kaneda
“One-pot Synthesis of α -Alkylated Nitriles with Carbonyl Compounds through Consecutive Aldol Reaction/Hydrogenation Using a Hydrotalcite-Supported Palladium Nanoparticle as a Multifunctional Heterogeneous Catalyst”
Tetrahedron Letters, **2005**, 46, 5507-5510.
5. Kohki Ebitani, Ken Motokura, Tomoo Mizugaki, and Kiyotomi Kaneda
“Heterotrimetallic RuMnMn Species on a Hydrotalcite Surface as Highly Efficient Heterogeneous Catalysts for Liquid-Phase Oxidation of Alcohols with Molecular Oxygen”
Angewandte Chemie International Edition, **2005**, 44, 3423-3426.
6. Ken Motokura, Noriaki Fujita, Kohsuke Mori, Tomoo Mizugaki, Kohki Ebitani, and Kiyotomi Kaneda
“Brønsted Acid-Mediated Heterogeneous Addition Reaction of 1,3-Dicarbonyls to Alkenes and Alcohols”
Angewandte Chemie International Edition, **2006**, 45, 2605-2609.
7. Kohki Ebitani, Masaki Kato, Ken Motokura, Tomoo Mizugaki, and Kiyotomi Kaneda
“Highly Efficient Heterogeneous Acylations of Aromatic Compounds with Acid Anhydrides and Carboxylic Acids by Montmorillonite-Enwrapped Titanium as a Solid Acid Catalyst”
Research on Chemical Intermediates, **2006**, 32, 305-315.
8. Ken Motokura, Noriaki Fujita, Kohsuke Mori, Tomoo Mizugaki, Kohki Ebitani, Koichiro Jitsukawa, and Kiyotomi Kaneda
“Environmentally Friendly One-Pot Synthesis of α -Alkylated Nitriles Using

Hydrotalcite-Supported Metal Species as Multifunctional Solid Catalysts”

Chemistry - A European Journal, **2006**, 12, 8228-8239.

9. Kohki Ebitani, Ken Motokura, Kohsuke Mori, Tomoo Mizugaki, and Kiyotomi Kaneda

“Reconstructed Hydrotalcite as a Highly Active Heterogeneous Base Catalyst for Carbon-Carbon Bond Formations in the Presence of Water”

The Journal of Organic Chemistry, **2006**, 71, 5440-5447.

10. Noriaki Fujita, Ken Motokura, Kohsuke Mori, Tomoo Mizugaki, Kohki Ebitani, Koichiro Jitsukawa, and Kiyotomi Kaneda

“A Rhodium-Grafted Hydrotalcite as a Highly Efficient Heterogeneous Catalyst for 1,4-Addition of Organoboron Reagents to α,β -Unsaturated Carbonyl Compounds”

Tetrahedron Letters, **2006**, 47, 5083-5087.

11. Ken Motokura, Nobuaki Nakagiri, Kohsuke Mori, Tomoo Mizugaki, Kohki Ebitani, Koichiro Jitsukawa, and Kiyotomi Kaneda

“Efficient C–N Bond Formation Catalyzed by a Proton-Exchanged Montmorillonite as a Heterogeneous Brønsted Acid”

Organic Letters, **2006**, 8, 4617-4620.

12. Ken Motokura, Nobuaki Nakagiri, Tomoo Mizugaki, Kohki Ebitani, and Kiyotomi Kaneda

“Nucleophilic Substitution Reactions of Alcohols with Use of Montmorillonite Catalysts as Solid Brønsted Acids”

The Journal of Organic Chemistry, **2007**, 72, 6006-6015.

13. Ken Motokura, Mizuki Tada, and Yasuhiro Iwasawa

“Heterogeneous Organic Base-Catalyzed Reactions Enhanced by Acid Supports”

Journal of the American Chemical Society, **2007**, 129, 9540-9541.

14. Ken Motokura, Mitsuru Tomita, Mizuki Tada, and Yasuhiro Iwasawa

“Acid-Base Bifunctional Catalysis of Silica-Alumina-Supported Organic Amines for Carbon-Carbon Bond-Forming Reactions”

Chemistry – A European Journal, **2008**, 14, 4017-4027.

15. Ken Motokura, Mizuki Tada, and Yasuhiro Iwasawa

“Acid-Base Bifunctional Catalytic Surfaces for Nucleophilic Addition Reactions”

Chemistry- An Asian Journal, **2008**, 3, 1230-1236. (Review)

[Dedicated to Professor Ryoji Noyori on the occasion of his 70th birthday]

16. Mizuki Tada, Ken Motokura, and Yasuhiro Iwasawa

“Conceptual Integration of Homogeneous and Heterogeneous Catalyses”

Topics in Catalysis, **2008**, 48, 32-40. (Review)

17. Kiyotomi Kaneda, Koichiro Jitsukawa, Kohki Ebitani, Tomoo Mizugaki, and Ken Motokura

“Hydrotalcite-Bound Ruthenium as a Multifunctional Heterogeneous Catalyst for One-Pot Synthesis of α -Alkylated Nitriles and Quinolines”

Research on Chemical Intermediates, **2008**, 34, 475-486.

18. Ken Motokura, Mizuki Tada, and Yasuhiro Iwasawa
“Cooperative Catalysis of Primary and Tertiary Amines on Oxide Support Surface for One-Pot C-C Bond Forming Reactions”
Angewandte Chemie International Edition, **2008**, 47, 9230-9235.

19. Kiyotomi Kaneda, Ken Motokura, Nobuaki Nakagiri, Tomoo Mizugaki, and Koichiro Jitsukawa
“Recyclable Indium Catalysts for Additions of 1,3-Dicarbonyl Compounds to Unactivated Alkynes Affected by Structure and Acid Strength of Solid Supports”
Green Chemistry, **2008**, 10, 1231-1234.

20. Mizuki Tada, Yusaku Akatsuka, Yong Yang, Takehiko Sasaki, Mutsuo Kinoshita, Ken Motokura, and Yasuhiro Iwasawa
“Photo-Induced Reversible Structural Transformation and Selective Oxidation Catalysis of Unsaturated Ru Complexes Supported on SiO₂”
Angewandte Chemie International Edition, **2008**, 47, 9252-9255.

21. Ken Motokura, Nagabhatla Viswanadham, Gudimella Murali Dhar, and Yasuhiro Iwasawa
“Creation of Acid-Base Bifunctional Catalysis for Efficient C-C Coupling Reactions by Amines Immobilization on SiO₂, Silica-Alumina, and Nano-H-ZSM-5”
Catalysis Today, **2009**, 141, 19-24.

22. Ken Motokura, Mitsuru Tomita, Mizuki Tada, Yasuhiro Iwasawa
“Michael Reactions Catalyzed by Basic Alkylamines and Dialkylaminopyridine Immobilized on Acidic Silica-Alumina Surfaces”
Topics in Catalysis, **2009**, 52, 579-585.

23. Ken Motokura, Mizuki Tada, and Yasuhiro Iwasawa
“Layered Materials with Coexisting Acidic and Basic Sites for Catalytic One-Pot Reaction Sequences”
Journal of the American Chemical Society, **2009**, 131, 7944-7945.

24. Ken Motokura, Mizuki Tada, and Yasuhiro Iwasawa
“Organofunctionalized Catalyst Surfaces Highly Active and Selective for Carbon–Carbon Bond-Forming Reactions”
Catalysis Today, **2009**, 147, 203-210. (Review)

25. Ken Motokura, Satoka Tanaka, Mizuki Tada, and Yasuhiro Iwasawa
“Bifunctional Heterogeneous Catalysis of Silica-Alumina-Supported Tertiary Amines with Controlled Acid-Base Interactions for Efficient 1,4-Addition Reactions”
Chemistry – A European Journal, **2009**, 15, 10871-10879..

26. Ken Motokura, Shintaro Itagaki, Yasuhiro Iwasawa, Akimitsu Miyaji, Toshihide Baba
“Silica-Supported Aminopyridinium Halides for Catalytic Transformations of Epoxides to

Cyclic Carbonates under Atmospheric Pressure of Carbon Dioxide”

Green Chemistry, **2009**, *11*, 1876-1880.

27. Yasuyoshi Iwase, Ken Motokura, To-ru Koyama, Akimitsu Miyaji, and Toshihide Baba

“Influence of Si Distribution in Framework of SAPO-34 and Its Particle Size on Propylene Selectivity and Production Rate for Conversion of Ethylene to Propylene”

Physical Chemistry Chemical Physics, **2009**, *11*, 9268-9277.

28. Ken Motokura, Shigekazu Matsunaga, Akimitsu Miyaji, Yasuharu Sakamoto, and Toshihide Baba

“Heterogeneous Allylsilylation of Aromatic and Aliphatic Alkenes Catalyzed by Proton-Exchanged Montmorillonite”

Organic Letters, **2010**, *12*, 1508-1511.

29. Ken Motokura, Hirokazu Yoneda, Akimitsu Miyaji, and Toshihide Baba

“Catalytic Ring-Opening Allylation of Cyclic Acetals with Allylsilanes Using Silica-Alumina”

Green Chemistry, **2010**, *12*, 1373-1375.

30. To-ru Koyama, Yoshihiro Hayashi, Hironori Horie, Susumu Kawauchi, Akihiko Matsumoto, Yasuyoshi Iwase, Yasuharu Sakamoto, Akimitsu Miyaji, Ken Motokura and Toshihide Baba

“Key role of the pore volume of zeolite for selective production of propylene from olefins”

Physical Chemistry Chemical Physics, **2010**, *12*, 2541-2554.

31. Ken Motokura, Hirokazu Yoneda, Akimitsu Miyaji, Yasuharu Sakamoto, and Toshihide Baba

“Catalytic synthesis of homoallyloxyalcohols and 1,2-bis(homoallyloxy)ethanes through ring-opening allylation of cyclic acetals with allylsilanes over solid acids”

Catalysis Science & Technology, **2011**, *1*, 470-479.

32. Ken Motokura, Norifumi Hashimoto, Takayoshi Hara, Takato Mitsudome, Tomoo Mizugaki, Koichiro Jitsukawa, and Kiyotomi Kaneda

“Rhodium-Grafted Hydrotalcite Catalyst for Heterogeneous 1,4-Addition Reaction of Organoboron Reagents to Electron Deficient Olefins”

Green Chemistry, **2011**, *13*, 2416-2422.

33. Ken Motokura, Kohei Nakayama, Akimitsu Miyaji, and Toshihide Baba

““Ligand-Consuming” Formation of Rhodium-Hydride Species from [Rh(OH)(cod)]₂ without any Additional Hydride Sources for Catalytic Olefin Isomerizations and Cyclobutene Synthesis”

ChemCatChem, **2011**, *3*, 1419-1421.

34. Ken Motokura, Shigekazu Matsunaga, Akimitsu Miyaji, Tatsuaki Yashima, Toshihide Baba

“Solvent-induced selectivity switching: intermolecular allylsilylation, arylsilylation, and silylation of alkynes over montmorillonite catalyst”

Tetrahedron Letters, **2011**, *52*, 6687-6692.

35. Akimitsu Miyaji, Teppei Miyoshi, Ken Motokura, and Toshihide Baba

“The substrate binding cavity of particulate methane monooxygenase from *Methylosinus trichosporium* OB3b expresses high enantioselectivity for *n*-butane and *n*-pentane oxidation to 2-alcohol”

Biotechnology Letters, **2011**, 33, 2241-2246.

36. Ken Motokura, and Toshihide Baba

“An Atom-Efficient Synthetic Method: Carbosilylations of Alkenes, Alkynes, and Cyclic Acetals Using Lewis and Brønsted Acid Catalysts”

Green Chemistry, **2012**, 14, 565-579 (Review).

37. Ken Motokura, Daiki Kashiwame, Akimitsu Miyaji, Toshihide Baba

“Copper-Catalyzed Formic Acid Synthesis from CO₂ with Hydrosilanes and H₂O”

Organic Letters, **2012**, 14, 2642-2645.

38. Hiroto Noda, Ken Motokura, Akimitsu Miyaji, Toshihide Baba

“Heterogeneous Synergistic Catalysis of a Pd Complex and an Amine on a Silica Surface for Acceleration of the Tsuji-Trost Reaction”

Angewandte Chemie International Edition, **2012**, 51, 8017-8020.

39. Ken Motokura, Shigekazu Matsunaga, Hiroto Noda, Akimitsu Miyaji, Toshihide Baba

“Water-Accelerated Allylsilylation of Alkenes Using a Proton-Exchanged Montmorillonite Catalyst”

ACS Catalysis, **2012**, 2, 1942-1946.

40. Krishna Reddy Jakkidi, Ken Motokura, To-ru Koyama, Akimitsu Miyaji, and Toshihide Baba

“Effect of morphology and particle size of ZSM-5 on catalytic performance for ethylene conversion and heptane cracking”

Journal of Catalysis, **2012**, 289, 53-61.

41. Yasuyoshi Iwase, Yasuharu Sakamoto, Akinobu Shiga, Akimitsu Miyaji, Ken Motokura, To-ru Koyama, Toshihide Baba

“Shape-Selective Catalysis Determined by the Volume of a Zeolite Cavity and the Reaction Mechanism for Propylene Production by the Conversion of Butene Using a Proton-Exchanged Zeolite”

The Journal of Physical Chemistry C, **2012**, 116, 5182-5196.

42. Hajime Munakata, To-ru Koyama, Tatsuaki Yashima, Naoki Asakawa, Toshinori O-nuki, Ken Motokura, Akimitsu Miyaji, Toshihide Baba

“Temperature Effect on ¹H Chemical Shift of Hydroxyl Groups in Zeolites and their Catalytic Activities as Solid Acids”

The Journal of Physical Chemistry C, **2012**, 116, 14551-14560.

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