

## List of Publications (Dr. Hiroshi Naka)

### Original Papers

1. Transfer Hydration of Dinitriles to Diamides  
Asuka Naraoka, \*Hiroshi Naka  
*Synlett*, **30**, 1977–1980 (2019). (DOI: 10.1055/s-0039-1690026) (Invited Cluster)
2. Acceptor-Controlled Transfer Dehydration of Amides to Nitriles  
Hiroyuki Okabe, Asuka Naraoka, Takahiro Isogawa, Shunsuke Oishi, \*Hiroshi Naka  
*Org. Lett.* **21**, 4767–4770 (2019). (DOI: 10.1021/acs.orglett.9b01657)
3. Catalytic Transfer Hydration of Cyanohydrins to  $\alpha$ -Hydroxyamides  
Tomoya Kanda, Asuka Naraoka, \*Hiroshi Naka  
*J. Am. Chem. Soc.* **141**, 825–830 (2019). (Highlighted in *Org. Process Res. Dev.* **23**, 114–121 (2019).)
4. Pd-Catalyzed  $\beta$ -Selective C–H Arylation of Thiophenes with Triarylimony Difluorides  
Yuki Kitamura, Yuki Murata, Ayaka Oguri, Mio Matsumura, Naoki Kakusawa, \*Hiroshi Naka, \*Shuji Yasuike  
*Asian J. Org. Chem.* **8**, 138–143 (2019).
5. Pd/TiO<sub>2</sub>-Photocatalyzed Self-Condensation of Primary Amines to Afford Secondary Amines at Ambient Temperature  
Lyu-Ming Wang, Kensuke Kobayashi, Mitsuhiro Arisawa, \*Susumu Saito, \*Hiroshi Naka  
*Org. Lett.* **21**, 341–344 (2019). (Highlighted in *Front Cover*.)
6. Photocatalytic N-Methylation of Amines over Pd/TiO<sub>2</sub> for the Functionalization of Heterocycles and Pharmaceutical Intermediates  
Lyu-Ming Wang, Kellie Jenkinson, Andrew E. H. Wheatley, Keiko Kuwata, Susumu Saito, \*Hiroshi Naka  
*ACS Sustainable Chem. Eng.* **6**, 15419–15424 (2018).
7. Copper(II) Bis(Diethyldithiocarbamate) Induces the Expression of Syndecan-4, a Transmembrane Heparan Sulfate Proteoglycan, via P38 MAPK Activation in Vascular Endothelial Cells  
Takato Hara, Hiroko Tatsuishi, Tomomi Banno, Tomoya Fujie, Chika Yamamoto, Hiroshi Naka, \*Toshiyuki Kaji  
*Int. J. Mol. Sci.* **19**, 3302 (2018).
8. N-Alkylation of Functionalized Amines with Alcohols Using a Copper–Gold Mixed Photocatalytic System  
Lyu-Ming Wang, Yuna Morioka, Kellie Jenkinson, \*Andrew E. H. Wheatley, \*Susumu Saito, \*Hiroshi Naka  
*Sci. Rep.* **8**, 6931 (2018).
9. Photocatalytic Hydrogenolysis of Allylic Alcohols for Rapid Access to Platform Chemicals and Fine Chemicals  
Yuki Takada, Joaquim Caner, Hiroshi Naka, \*Susumu Saito  
*Pure Appl. Chem.* **90**, 167–174 (2018). (invited conference paper)
10. A Fluorinated Cobalt(III) Porphyrin Complex for Hydroalkoxylation of Alkynes  
Richiro Ushimaru, Takuho Nishimura, Toshiki Iwatsuki, \*Hiroshi Naka  
*Chem. Pharm. Bull.* **65**, 1000–1003 (2017).
11. Photocatalytic Transfer Hydrogenolysis of Allylic Alcohols on Pd/TiO<sub>2</sub>: A Shortcut to (*S*)-(+)-Lavandulol  
Yuki Takada, Joaquim Caner, Selvam Kaliyamoorthy, Hiroshi Naka, \*Susumu Saito  
*Chem. -Eur. J.* **23**, 18025–18032 (2017).

12. Copper Diethyldithiocarbamate as an Inhibitor of Tissue Plasminogen Activator Synthesis in Cultured Human Coronary Endothelial Cells  
Tomoya Fujie, Shiori Okino, Eiko Yoshida, Chika Yamamoto, \*Hiroshi Naka, \*Toshiyuki Kaji  
*J. Toxicol. Sci.* **42**, 553–558 (2017).
13. A Versatile Synthesis of Triarylantimony Difluorides by Fluorination of Triarylstibanes with Nitrosyl Tetrafluoroborate and Their Antitumor Activity  
Yuki Kitamura, Mio Matsumura, Yuki Murata, Mizuki Yamada, Naoki Kakusawa, Motohiro Tanaka, Hiroyuki Okabe, \*Hiroshi Naka, \*Tohru Obata, \*Shuji Yasuike  
*J. Fluorine Chem.* **199**, 1–6 (2017).
14. Dehydrogenation of Primary Aliphatic Alcohols by Au/TiO<sub>2</sub> Photocatalysts  
Masaki Shibata, Ryoko Nagata, Susumu Saito, \*Hiroshi Naka  
*Chem. Lett.* **46**, 580–582 (2017).
15. Selective Hydrogenation of Arenes to Cyclohexanes in Water Catalyzed by Chitin-Supported Ruthenium Nanoparticles  
Yuna Morioka, Aki Matsuoka, Kellie Binder, Benjamin R. Knappett, \*Andrew E. H. Wheatley, \*Hiroshi Naka  
*Catal. Sci. Technol.* **6**, 5801–5805 (2016).
16. Copper Diethyldithiocarbamate as an Activator of Nrf2 in Cultured Vascular Endothelial Cells  
Tomoya Fujie, Masaki Murakami, Eiko Yoshida, Tadashi Tachinami, Yasuhiro Shinkai, Yasuyuki Fujiwara, Chika Yamamoto, Yoshito Kumagai, \*Hiroshi Naka, \*Toshiyuki Kaji  
*J. Biol. Inorg. Chem.* **21**, 263–273 (2016).
17. Induction of Metallothionein Isoforms by Copper Diethyldithiocarbamate in Cultured Vascular Endothelial Cells  
Tomoya Fujie, Yukino Segawa, Tomoki Kimura, Yasuyuki Fujiwara, Chika Yamamoto, Masahiko Satoh, \*Hiroshi Naka, \*Toshiyuki Kaji  
*J. Toxicol. Sci.* **41**, 225–232 (2016).
18. Zinc Diethyldithiocarbamate as an Inducer of Metallothionein in Cultured Vascular Endothelial Cells  
Tomoya Fujie, Yukino Segawa, Akane Uehara, Takehiro Nakamura, Tomoki Kimura, Eiko Yoshida, Chika Yamamoto, Masanobu Uchiyama, \*Hiroshi Naka, \*Toshiyuki Kaji  
*J. Toxicol. Sci.* **41**, 217–224 (2016).
19. N-Methylation of Amines with Methanol at Room Temperature  
Vasily N. Tsarev, Yuna Morioka, Joaquim Caner, Qing Wang, Richiro Ushimaru, Akihiko Kudo, Hiroshi Naka, \*Susumu Saito  
*Org. Lett.* **17**, 2530–2533 (2015).
20. Hydration of Nitriles to Amides by a Chitin-supported Ruthenium Catalyst  
Aki Matsuoka, Takahiro Isogawa, Yuna Morioka, Benjamin R. Knappett, \*Andrew E. H. Wheatley, \*Susumu Saito, \*Hiroshi Naka  
*RSC Adv.* **5**, 12152–12160 (2015).
21. Why *p*-Cymene? Conformational Effect in Asymmetric Hydrogenation of Aromatic Ketones with a  $\eta^6$ -Arene/Ruthenium(II) Catalyst  
Aki Matsuoka, Christian A. Sandoval, Masanobu Uchiyama, Ryoji Noyori, \*Hiroshi Naka  
*Chem. Asian J.* **10**, 112–115 (2015).

22. Synthesis of Propylene from Renewable Allyl Alcohol by Photocatalytic Transfer Hydrogenolysis  
Joaquim Caner, Zijun Liu, Yuki Takada, Akihiko Kudo, Hiroshi Naka, \*Susumu Saito  
*Catal. Sci. Technol.* **4**, 4093–4098 (2014).
23. Activation of Cellular Defense Mechanism by Organic-Inorganic Hybrid Molecules  
Tomoya Fujie, Hiroshi Naka, Chika Yamamoto, Yasuhiro Shinkai, Yoshito Kumagai, \*Toshiyuki Kaji  
*Yakugaku Zasshi* **134**, 813–815 (2014).
24. Redox-Selective Generation of Aldehydes and H<sub>2</sub> from Alcohols under Visible Light  
Zijun Liu, Joaquim Caner, Akihiko Kudo, Hiroshi Naka, \*Susumu Saito  
*Chem. - Eur. J.* **19**, 9452–9456 (2013). (*Highlighted in Synfacts* **9**, 1138 (2013).)
25. Hydration of Terminal Alkynes Catalyzed by Water-Soluble Cobalt Porphyrin Complexes  
Tadashi Tachinami, Takuho Nishimura, Richiro Ushimaru, Ryoji Noyori, \*Hiroshi Naka  
*J. Am. Chem. Soc.* **135**, 50–53 (2013).
26. Acetals of *N,N*-Dimethylformamides: Ambiphilic Behavior in Converting Carbon Dioxide to Dialkyl Carbonates  
Yuki Takada, Aki Matsuoka, Ya Du, Hiroshi Naka, \*Susumu Saito  
*Chem. Lett.* **42**, 146–147 (2013).
27. Bis(L-cysteinato)zincate(II) as a Coordination Compound that Specifically Induces Metallothionein Gene Transcription Without Inducing Cell-stress-related Gene Transcript  
\*Tomoki Kimura, Kengo Yoshida, Chika Yamamoto, Minako Suzuki, Tomoko Uno, Masakazu Isobe, Hiroshi Naka, Shuji Yasuike, Masahiko Satoh, Toshiyuki Kaji, \*Masanobu Uchiyama  
*J. Inorg. Biochem.* **117**, 140–146 (2012).
28. One-Pot Nitrile Aldolization/Hydration Operation Giving  $\beta$ -Hydroxy Carboxamides  
Akihiro Goto, Hiroshi Naka, Ryoji Noyori, \*Susumu Saito  
*Chem. Asian J.* **6**, 1740–1743 (2011).
29. Generation of Arylzinc Reagents Through an Iodine–zinc Exchange Reaction Promoted by a Non-metallic Organic Superbase  
\*Hiroshi Naka, Keisuke Ito, Masahiro Ueno, Koji Kobayashi, \*Yoshinori Kondo  
*New J. Chem.* **34**, 1700–1706 (2010).
30. Chiral  $\eta^6$ -Arene/*N*-Tosylethylenediamine–Ruthenium(II) Complexes: Solution Behavior and Catalytic Activity for Asymmetric Hydrogenation  
\*Christian A. Sandoval, Fusheng Bie, Aki Matsuoka, Yoshiki Yamaguchi, Hiroshi Naka, Yuehui Li, Koichi Kato, Noriyuki Utsumi, Kunihiko Tsutsumi, Takeshi Ohkuma, Kunihiko Murata, \*Ryoji Noyori  
*Chem. Asian J.* **5**, 806–816 (2010).
31. S<sub>N</sub>2' Reaction of Organozinc Reagents Activated by Catalytic *t*Bu-P4 Base in the Presence of LiCl  
Koji Kobayashi, Masahiro Ueno, Hiroshi Naka, \*Yoshinori Kondo  
*Chem. - Eur. J.* **15**, 9805–9809 (2009).
32. A Mixed Alkyl-amido Aluminate as a Kinetically Controlled Base  
\*Hiroshi Naka, James V. Morey, Joanna Haywood, Dana Eisler, Mary McPartlin, Felipe García, Hironaga Kudo, Yoshinori Kondo, \*Masanobu Uchiyama, \*Andrew E. H. Wheatley  
*J. Am. Chem. Soc.* **130**, 16193–16200 (2008).
33. Catalytic Deprotonative Functionalization of Propargyl Silyl Ethers with Imines  
\*Hiroshi Naka, Daiki Koseki, \*Yoshinori Kondo  
*Adv. Synth. Catal.* **350**, 1901–1906 (2008).

34. Chiral Bisphosphazides as Dual Basic Enantioselective Catalysts  
\*Hiroshi Naka, Nobuhiko Kanase, Masahiro Ueno, \*Yoshinori Kondo  
*Chem. - Eur. J.* **14**, 5267–5274 (2008).
35. Organozinc Reagents in DMSO Solvent: Remarkable Promotion of S<sub>N</sub>2' Reaction for Allene Synthesis  
Koji Kobayashi, Hiroshi Naka, Andrew E. H. Wheatley, \*Yoshinori Kondo  
*Org. Lett.* **10**, 3375–3377 (2008).
36. Activation of Organozinc Reagents with *t*-Bu-P<sub>4</sub> Base for Transition Metal-free Catalytic S<sub>N</sub>2' Reaction  
Koji Kobayashi, Hiroshi Naka, Andrew E. H. Wheatley, \*Yoshinori Kondo  
*Chem. Commun.* 3780–3782 (2008).
37. Suppressing the Anionic Fries Rearrangement of Aryl Dialkylcarbamates; the Isolation of a Crystalline ortho-Deprotonated Carbamate  
Felipe García, Mary McPartlin, James V. Morey, Daisuke Nobuto, Yoshinori Kondo, Hiroshi Naka,  
\*Masanobu Uchiyama, \*Andrew E. H. Wheatley  
*Eur. J. Org. Chem.* 644–647 (2008).
38. Solid-phase Synthesis of Phthalocyanine and Tetraazaporphyrin Triangular Prisms  
Atsuya Muranaka, Kengo Yoshida, Yusuke Akagi, Hiroshi Naka, Masanobu Uchiyama Yoshinori Kondo,  
\*Nagao Kobayashi  
*Tetrahedron Lett.* **49**, 5084–5086 (2008).
39. On the Kinetic and Thermodynamic Reactivity of Lithium Di(alkyl)amidozincate Bases in Directed *Ortho* Metalation  
Yoshinori Kondo, James V. Morey, Jacqueline C. Morgan, Hiroshi Naka, Daisuke Nobuto, Paul R.  
Raithby, \*Masanobu Uchiyama, \*Andrew E. H. Wheatley  
*J. Am. Chem. Soc.* **129**, 12734–12738 (2007).
40. Theoretical Studies on Ortho Oxidation of Phenols with Dioxygen Mediated by Dicopper Complex: Hints for a Catalyst with the Phenolase Activity of Tyrosinase  
\*Hiroshi Naka, Yoshinori Kondo, Shinya Usui, Yuichi Hashimoto, \*Masanobu Uchiyama  
*Adv. Synth. Catal.* **349**, 595–600 (2007).
41. An Aluminum Ate Base: Its Design, Structure, Function and Reaction Mechanism  
\*Hiroshi Naka, \*Masanobu Uchiyama, Yotaro Matsumoto, \*Andrew E. H. Wheatley, Mary McPartlin,  
James V. Morey, Yoshinori Kondo  
*J. Am. Chem. Soc.* **129**, 1921–1930 (2007).
42. Fluorous Synthesis of Yuehchukene by alpha-Lithiation of Perfluoroalkyl-Tagged 1-(Arylsulfonyl)indole with Mesityllithium  
Hiroshi Naka, Yusuke Akagi, Kyoko Yamada, Tatsushi Imahori, Takahiro Kasahara, \*Yoshinori Kondo  
*Eur. J. Org. Chem.* 4635–4637 (2007).
43. Nucleophilic Aromatic Substitution using Et<sub>3</sub>SiH/cat. *t*-Bu-P<sub>4</sub> as a System for Nucleophile Activation  
Masahiro Ueno, Misato Yonemoto, Masahiro Hashimoto, Andrew E. H. Wheatley, Hiroshi Naka,  
\*Yoshinori Kondo  
*Chem. Commun.* 2264–2266 (2007).
44. Reverse Photochromic Behavior of Iron-Magnesium Complex  
\*Minoru Kobayashi, Akito Takashima, Tomohiko Ishii, Hiroshi Naka, Masanobu Uchiyama, \*Kentaro  
Yamaguchi  
*Inorg. Chem.* **46**, 1039–1041 (2007).

45. Encapsulation of Hydride by Molecular Main Group Metal Clusters: Manipulating the Source and Coordination Sphere of the Interstitial Ion  
Sally R. Boss, Martyn P. Coles, Vicki Eyre-Brook, Felipe García, Robert Haigh, Peter B. Hitchcock, Mary McPartlin, James V. Morey, Hiroshi Naka, Paul R. Raithby, Hazel A. Sparkes, Christopher W. Tate,  
\*Andrew E. H. Wheatley  
*Dalton Trans.* 5574–5582 (2006).
46. Regio- and Chemoselective Direct Generation of Functionalized Aromatic Aluminum Compounds Using Aluminum Ate Base  
\*Masanobu Uchiyama, Hiroshi Naka, Yotaro Matsumoto, Tomohiko Ohwada  
*J. Am. Chem. Soc.* **126**, 10526–10527 (2004).

### Reviews

1. Recent Advances in Transfer Hydration of Nitriles with Amides or Aldoximes  
\*Hiroshi Naka, Asuka Naraoka  
*Tetrahedron Lett. Submitted.* (Digest Paper)

### Books

1. Recent advances in transfer hydration of nitriles with amides or aldoximes  
\*Hiroshi Naka, Asuka Naraoka  
*Tetrahedron Lett. Submitted.* (Digest Paper)
2. Converting Carbon Dioxide to Chemical Resources by Using Ambiphilic Nature of Alcohols  
Hiroshi Naka, Susumu Saito  
In *Latest Trends in Direct Utilization of Carbon Dioxide*, NTS, pp 103–113 (2013).
3. Aluminum Halides  
Hiroshi Naka, Susumu Saito  
In *Science of Synthesis Knowledge Updates*, K. Ishihara Ed.; Thieme: Stuttgart, Vol.2010/4, Section 7.1.3.18, pp 79–92 (2011).
4. Aluminum Hydrides  
Hiroshi Naka, Susumu Saito  
In *Science of Synthesis Knowledge Updates*, K. Ishihara Ed.; Thieme: Stuttgart, Vol. 2010/4, Section 7.1.2.44, pp 69–77 (2011).

### Tutorials

1. Beating Organic Reaction  
Hiroshi Naka  
*Kagaku*, **72** (5), 62–63 (2017).
2. Molecular Catalysis and the GRRM Methods  
Hiroshi Naka  
*IQCE-NEWS*, 23, 1 (2015).
3. New Trends in Molecular Catalysis  
Hiroshi Naka  
*RCMS News*, **15**, in press (2015).

4. Connecting Benzene Ring and Fluorine with Catalysis  
Hiroshi Naka  
Kagaku, **65**(3), 62–63 (2010).
5. Global COE-RCMS International Conference on Organic Chemistry and the 6th Hirata Yoshimasa Memorial Lecture  
Hiroshi Naka  
RCMS News, **11**, 10 (2010).
6. Towards Robust Molecular Catalysis  
Hiroshi Naka  
RCMS News, **10**, 20–21 (2009).

#### **International Invited Lectures**

1. “Transfer (De)hydration Catalysis” Core-to-Core and GTR Symposium “Elements Function for Transformative Catalysis and Materials” Feb 7–8, 2019, Nagoya University, Nagoya (invited).
2. “(Photo)catalytic Conversion of Water and Alcohols for Selective Chemical Synthesis” Chemistry Department Seminar, Jan 31, 2019, Dalhousie University, Canada.
3. “(Photo)catalytic Conversion of Water and Alcohols for Selective Chemical Synthesis” McGill Chemical Society Seminar, Jan 30, 2019, McGill University, Canada.
4. “(Photo)catalytic Conversion of Water and Alcohols for Selective Chemical Synthesis” Chemistry Department Seminar, Jan 28, 2019, Queen’s University, Canada.
5. “(Photo)catalytic Conversion of Water and Alcohols for Selective Chemical Synthesis” Special Department Seminar, Jan 25, 2019, University of Ottawa, Canada.
6. “(Photo)catalytic Conversion of Water and Alcohols for Selective Chemical Synthesis” Special Chemistry Seminar, Jan 24, 2019, University of Toronto, Canada.
7. “(Photo)catalytic Conversion of Water and Alcohols for Selective Chemical Synthesis” Department Seminar, Jan 23, 2019, University of Alberta, Canada.
8. “(Photo)catalytic Conversion of Water and Alcohols for Selective Chemical Synthesis” Organic Seminar, Jan 21, 2019, University of British Columbia, Canada.
9. “Photocatalytic Conversion of Alcohols for Selective Chemical Synthesis” ACP Lectureship Award Seminar, Aug 10, 2017, Nanyang Technological University, Singapore.
10. “Photocatalytic Conversion of Alcohols for Selective Chemical Synthesis” ACP Lectureship Award Seminar, Aug 8, 2017, National University of Singapore, Singapore.
11. "Catalytic Transformation of Alcohols for Selective Organic Synthesis" Intergroup Seminar at the Laboratory of Organic Chemistry, Apr 28, 2015, ETH Zurich, Switzerland.
12. "A Step Towards Robust Hydration of Organic Compounds Through Molecular Catalysis" 11<sup>th</sup> IRTG Joint Symposium, May 9–10, 2011, University of Muenster, Muenster, Germany.
13. "Lithium Aluminate Bases for Selective Organic Synthesis" Pacificchem2010 (Early Main Group Chemistry section #100-1A), Dec 15–20, 2010, Honolulu, Hawaii, USA.
14. "Cobalt-Catalyzed Hydration of Alkynes: Toward Robust Transformation of Small Molecules Through Molecular Catalysis" The 4th International G-COE Chem6 Symposium for Emergence of New Molecular Chemistry, Mar 2, 2010, Tokyo Institute of Technology, Tokyo.

15. "Creating Functionalized Aromatic Compounds Using Ate Complexes" International Research Training Group "Complex Functional Systems in Chemistry" Muenster (GER) - Nagoya (JPN) Lectureship, Jan 21, 2010, University of Muenster, Muenster, Germany.

### **Domestic Invited Lectures**

1. "(Photo)catalytic Conversion of Water and Alcohols for Chemical Synthesis" Dec 21, 2018, Kyoto University Human and Environmental Studies Winter Seminar, Kyoto University, Kyoto.
2. "Robust Metal Complexes for Bioorganometallics" Dec 7, 2018, Interdisciplinary Seminar, Toho University, Chiba.
3. "Chemical Synthesis through Photocatalytic Transformation of Alcohols", Special Lecture of Pharmaceutical Society of Japan, Tokai Region, Jul 11, 2014, Aichi Gakuin University, Nagoya.
4. "Towards Robust Transformation of Water: Cobalt-catalyzed Hydration of Terminal Alkynes", Hokuriku University Academic Frontier Annual Meeting FY2009, Mar 16–17, 2010, Hokuriku University, Kanazawa.
5. "Robust Chemical Transformations based on Molecular Catalysis", Hokuriku University Academic Frontier Special Lecture, Jan 29, 2010, Hokuriku University, Kanazawa.
6. "Molecular Catalysis for Medicinal Chemistry", Special Lecture of Pharmaceutical Society of Japan, Tokai Region, Dec 7, 2009, Aichi Gakuin University, Nagoya.
7. "QM Computation-assisted Research on Design, Analysis, and Reactions of Metal Ate Complexes", Tohoku University GCOE Lecture, Mar 7, 2008, Tohoku University, Sendai.

### **Patents**

1. TO BE ADDED  
Hiroshi Naka, Shinsuke Iwata, Ryoji Noyori / Nagoya University  
JP 2014-45342, 07.03.2014.
2. TO BE ADDED  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Vasily N. Tsarev, Joachim Kanaa Kazademont, Akihiko Kudo / Nagoya University  
JP 2013-213167, 10.10.2013.
3. TO BE ADDED  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Joachim Kanaa Kazademont, Zijun Liu, Akihiko Kudo / Nagoya University  
JP 2013-193470, 18.09.2013.
4. METHOD OF PRODUCING CYCLIC URETHANE  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Foo Siong Wan / Nagoya University  
JP 2013-65083, 26.03.2013; JP2014-189509A, 06.10.2014.
5. METHOD OF MANUFACTURING CARBONYL COMPOUND  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Zijun Liu, Joachim Kanaa Kazademont, Akihiko Kudo / Nagoya University  
JP 2012-181888, 20.08.2012; JP 2014-037396A, 27.02.2014.
6. FAT CELL DIFFERENTIATION INHIBITOR  
Akira Onodera, Masahiko Sato, Naonobu Uchiyama, Tokuo Ito, Hiroshi Naka, Shuji Yasuie / Kobe

Gakuin, Aichi Gakuin

JP2012-107557, 09.05.2012; 2013-234150A, 21.11.2013.

7. METHOD FOR PRODUCING ANNULAR URETHANE  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Yusuke, Yamazaki, Yuki Takada / Nagoya University  
JP 2012-70113, 26.03.2012; 2013-199456A, 03.10.2013.
8. METHOD FOR PRODUCING CYCLIC URETHANE  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Yusuke, Yamazaki, Foo Siong Wan / Nagoya University  
JP 2012-28845, 13.02.2012; JP2013-163668A, 22.08.2013.
9. METHOD OF PRODUCING HIGHER AMINE  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Ya Du / Nagoya University  
JP 2010-208526, 16.09.2010; JP2012-062281A, 29.03.2012.
10. METHOD OF PRODUCING CARBONIC ESTER  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Yusuke, Yamazaki, Ya Du / Nagoya University  
JP 2010-203712, 10.09.2010; JP2012-056910A, 22.03.2012.
11. METHOD FOR PRODUCING PYRROLE  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Osamu Kose, Junki Ando / Nagoya University  
JP 2010-49823, 05.03.2010; 2011-184338A, 22.09.2011
12. METHOD FOR PRODUCING DIMER  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Osamu Kose, Junki Ando / Nagoya University  
JP 2010-49735, 05.03.2010; JP2011-184336A, 22.09.2011.
13. METHOD FOR PRODUCING MONOAMINE  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Zhao Yingsheng / Nagoya University  
JP 2010-1557, 06.01.2010; JP 2011-140456A, 21.07.2011.
14. METHOD FOR PRODUCING ALCOHOL AND CATALYST FOR DIMERIZATION REACTION OF ALCOHOL  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Osamu Kose, Takashi Miura / Nagoya University  
JP 2009-299231, 23.12.2009; JP 2011-136970A, 14.07.2011.
15. PROCESS FOR PRODUCING CARBONATE ESTER  
Ryoji Noyori, Susumu Saito, Hiroshi Naka, Kasumi Kakuma, Yusuke, Yamazaki, Ya Du / Nagoya University  
JP 2009-233817, 25.12.2009; JP 2011-098949A, 19.05.2011.
16. FUNCTIONAL PHOSPHAZIDE HAVING HIGH HEAT STABILITY  
Yoshinori Kondo, Hiroshi Naka, Tetsuya Shimo / Tohoku University  
JP 2008-193767, 28.07.2008; JP 2010-30941A, 12.02.2010.