

## 《著書および学術雑誌への掲載論文》

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- K. Omata\*, Y. Yamazaki\*, Y. Kobayashi\*, M. Yamada  
"High-throughput Screening of Quaternary Oxide for Friedel-Crafts Reaction"  
Journal of the Japan Petroleum Institute, Vol.53, No.5, pp.303-307, (2010)  
(\*Graduate School of Engineering, Tohoku University)
- J. Horiguchi\*, S. Kobayashi\*, Y. Yamazaki\*, T. Nakanishi\*, D. Itabashi\*, K. Omata\*, M. Yamada  
"Optimization of K-Ni/ $\alpha$ -Al<sub>2</sub>O<sub>3</sub> Catalyst for High Pressure Oxidative Reforming of Methane by Radial Basis Function Network and Multivariate Analysis"  
Applied Catalysis A: General, Vol.377, No.1-2, pp.9-15, (2010)  
(\*Graduate School of Engineering, Tohoku University)
- Y. Kobayashi\*, K. Omata\*, M. Yamada  
"Screening of Additives to a Co/SrCO<sub>3</sub> Catalyst by Artificial Neural Network for Preferential Oxidation of CO in Excess H<sub>2</sub>"  
Industrial and Engineering Chemistry Research, Vol.49, No.4, pp.1541-1549, (2010)
- K. Omata\*, Y. Yamazaki\*, Y. Kobayashi\*, M. Yamada  
"Application of Response Surface Method using Rapid Screening, Support Vector Machine, and Multiple Regression on the Acidity and Activity of Si-Al-Zr Ternary Oxide"  
Journal of Combinatorial Chemistry, Vol.12, No.4, pp.435-444, (2010)  
(\*Graduate School of Engineering, Tohoku University)
- K. Omata\*, S. Kobayashi\*, J. Horiguchi\*, Y. Yamazaki\*, D. Itabashi\*, T. Nakanishi\*, M. Yamada  
"Effect of Fractal Dimension on CO Selectivity of K-Ni/ $\alpha$ -Al<sub>2</sub>O<sub>3</sub> Catalyst for High Pressure Oxidative Reforming of Methane"  
Journal of the Japan Petroleum Institute, Vol.53, No.3, pp.191-198, (2010)  
(\*Graduate School of Engineering, Tohoku University)
- Naoto Koizumi\*, Yusuke Hamabe\*, Shohei Yoshida\*, Muneyoshi Yamada  
"Simultaneous promotion of hydrogenation and direct desulfurization routes in hydrodesulfurization of 4,6-dimethyldibenzothiophene over NiW catalyst by use of SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> support in combination with trans-1,2-diaminocyclohexane-N,N,N',N'-tetraacetic acid"  
Applied Catalysis A: General, Vol.383, pp.79-88, (2010)  
(\*Graduate School of Engineering, Tohoku University)
- Yusuke Hamabe\*, Sungbong Jung\*, Hikotaro Suzuki\*, Naoto Koizumi\*, Muneyoshi Yamada  
"Quasi in situ Ni K-edge EXAFS investigation of the spent NiMo catalyst from ultra-deep hydrodesulfurization of gas oil in a commercial plant"  
J. Synchrotron Rad., Vol.17, pp.530-539, (2010)  
(\*Graduate School of Engineering, Tohoku University)
- Naoto Koizumi\*, Yusuke Hamabe\*, Sungbong Jung\*, Yasuhiro Suzuki\*, Shohei Yoshida\*, Muneyoshi Yamada  
"In situ observation of Ni-Mo-S phase formed on NiMo/Al<sub>2</sub>O<sub>3</sub> catalyst sulfided at high pressure by means of Ni and Mo K-edge EXAFS spectroscopy"  
J. Synchrotron Rad., Vol.17, pp.414-424, (2010)  
(\*Graduate School of Engineering, Tohoku University)
- Naoto Koizumi\*, Sungbong Jung\*, Yusuke Hamabe\*, Hikotaro Suzuki\*, Muneyoshi Yamada  
"Investigation of Surface Site of Ni Species on NiMo/Al<sub>2</sub>O<sub>3</sub> Hydrodesulfurization Catalyst Sulfided at High-Pressure by Means of DRIFTS Combined With Low-Temperature NO Adsorption"  
Catalysis Letters, Vol.135, pp.175-181, (2010)  
(\*Graduate School of Engineering, Tohoku University)

- Muneyoshi Yamada  
"Importance of Processes and Catalysts to Produce Ultra-Clean Fuels"  
Journal of the Japan Institute of Energy, Vol.89, pp.194-199, (2010)
- Makoto Sasaki\*, Takehiro Iwami\*\*, Kazuto Miyawaki, Ikuro Sato\*\*\*, Goro Obinata#, Ashish Dutta##  
"Higher Dimensional Spatial Expression of Upper Limb Manipulation Ability based on Human Joint Torque Characteristics"  
Robot Manipulators New Achievements, ISBN 978-953-307-090-2, pp.693-718, Intech, Publishing (2010.4)  
(\*Iwate Univ., \*\*Akita Univ., \*\*\*Miyagi Cancer Center, #Nagoya Univ., ##Indian Institute of Tech.)
- 巖見武裕\*, 佐々木誠\*\*, 宮脇和人, 大日方五郎\*\*\*, 三澤晶子\*, 松永俊樹\*, 島田洋一\*  
「高齢者における動的座位バランスの評価」  
日本機械学会論文集 (C編), Vol.75, No.760, pp.3237~3243, (2009.12)  
(\*秋田大学, \*\*岩手大学, \*\*\*名古屋大学)
- Kazuto Miyawaki, Takehiro Iwami\*, Yoichi Shimada\*, Toshiki Matsunaga\*, Mineyoshi Sato\*  
"Development of a Rowing Machine using Functional Electrical Stimulation"  
日本設計工学会 Vol.44, No.12, pp694-697 (2009.12)  
(\*Akita Univ.)
- 宮脇和人, 巖見武裕\*, 小笠原雄二\*\*, 島田洋一\*  
「施設で利用する電動歩行支援装置の開発」  
日本福祉工学会誌, Vol.11, No.2, pp.24-29 (2009.11)  
(\*秋田大学, \*\*秋田県産総研センター)
- 落合雄二 (分担執筆)  
「高付加価値のための精密研磨」  
日刊工業新聞社, 209-211頁, (2010.2)
- Junji Shibata\*, Kiyoshi Ohishi\*, Itaru Ando, Mina Ogawa\*\*  
"Fine Output Voltage Control for Inverter System Having Nonlinear Load and Time-Delay"  
Proc. of the IEEJ & IEEE International Power electronics Conference, p1541-1546, (2010.6)  
(\*Nagaoka University of Technology, \*\*Hitachi Medical Corporation)
- Shotaro Shindo\*, Kiyoshi Ohishi\*, Yuta Terae\*, Itaru Ando, Mina Ogawa\*\*  
"High Power Factor Control Using Load Resonant Frequency Auto Tracking Phase Shift Inverter"  
Proc. of the IEEE International Symposium on Industrial Electronics, p856-861, (2010.7)  
(\*Nagaoka University of Technology, \*\*Hitachi Medical Corporation)
- Takuya Natsui\*, Azusa Mori\*, Kiwoo Lee\*, Mitsuru Uesaka\*, Fumito Sakamoto  
"Beam Measurement Experiment of X-Band Linac for Compton Scattering X-Ray Generation"  
The 1<sup>st</sup> International Particle Accelerator Conference, pp.82-84, (2010.5)  
(\*The University of Tokyo)
- Katsuyasu Sugawara\*, Hideki Suzuki\*, Takahiro Kato\*, Takuo Sugawara\*, Megumi Otsuka, Hitoshi Funayama  
"Photo-Oxidation of Ethylene with Hydrogen Peroxide"  
*Journal of Chemical Engineering of Japan*, Vol.42, Supplement 1, pp.s50-s55, (2009)  
(\*Akita University)
- 菅原勝康\*, 野中利瀬弘  
「塩化揮発法による希少元素の選択的分離回収プロセスの開発」  
ケミカルエンジニアリング, Vol.55, No.3, pp.169-174, (2010)  
(\*秋田大学工学資源学部)
- Toshihiro Ogino\*, Toshiyuki Mitachi\*\*, Hiroshi Oikawa\* and Takayuki Takahashi\*, Masaki Tsushima  
"Frequency Response Characteristics of Bender Element Test System Identified by Frequency-Swept Signal Input"  
*Soils and Foundations*, Vol.50, No.5, pp.737-745, (2010.10)  
(\*Akita University, \*\*Nihon University)
- Masaki Tsushima, Junichi Komatsu\*, Hiroshi Oikawa\*\*, Toshihiro Ogino\*\*  
"Base Course Material obtained by Mixing Waste Melting Slag and Rock Muck with Slaked Lime"  
Proceedings of the Twentieth (2010) International Offshore and Polar Engineering Conference, Beijing, China, pp.652-657, (2010.6)  
(\*Okuyama Boring Co., Ltd\*\*, Akita University)

- Ryoji Sakurada, Abhishek Kumar Singh\*, Yoshiyuki Kawazoe\*\*  
 "First-Principles Study on Structural Properties of Bata-Form Belite"  
 35th Conference on Our World in Concrete and Structures, Vol.29, pp.391-396, (2010)  
 (\*Indian Institute of Science, \*\*Institute for Materials Research, Tohoku University)
- 佐藤 悟  
 「秋田県中央部における大気汚染物質の特徴について」  
 東北地域災害科学研究論文集, 第46巻, pp.215-220, (2010)
- 水田敏彦, 安田祐輔\*  
 「秋田市におけるやや長周期微動観測に基づく深層地盤構造の推定」  
 東北地域災害科学研究, 第46巻, pp.75~80, (2010.3)  
 (\*秋田高専専攻科修了生(現:東日本旅客鉄道秋田支社))
- 水田敏彦, 鏡味洋史\*  
 「1939.5.1男鹿地震の被害分布に関する文献調査」  
 日本建築学会技術報告集, 第33号, pp.817~820, (2010.6)  
 (\*北海道大学)
- 水田敏彦, 鏡味洋史\*  
 「1896.8.31陸羽地震の秋田県における震災対応に関する文献調査」  
 日本建築学会技術報告集, 第34号, pp.1207~1210, (2010.10)  
 (\*北海道大学)
- M. Chen\*, J. H. Kim, M. Yang\*, Y. Wang\*, N. Kishida\*\*, K. Kawamura\*\*\*, R. Sudo\*\*\*  
 "Foaming control by automatic carbon source adjustment using an ORP profile in sequencing batch reactors for enhanced nitrogen removal in swine wastewater treatment"  
*Bioprocess and Biosystems Engineering*, Vol.33, pp.355-362, (2010)  
 (\*Chinese Academy of Sciences, \*\*Waseda University, \*\*\*Center for Environmental Science in Saitama)
- Yuta Murai\*, Mikiharu Arimura\*\*, Hironobu Hasegawa, Tohru Tamura\*, Yasuhiko Kajiya\*\*\*  
 "Text mining analysis on methods of information provision that influence tourists' travel behavior"  
*Journal of the Eastern Asia Society for Transportation Studies*, Vol.8, pp.929-941, (2010.7)  
 (\*Muroran Institute of Technology, \*\*Nihon University, \*\*\*Civil Engineering Research Institute for Cold Region)
- 増田周平  
 「下水処理場における温室効果ガスの発生と削減対策」  
 環境技術, Vol.39, No.11, pp.30-35, (2010)
- 増田周平, 京野貴文, 李 玉友, 西村 修  
 「嫌気好気活性汚泥法を行う下水処理場における冬季のCH<sub>4</sub>・N<sub>2</sub>Oの発生特性」  
 用水と廃水, Vol.52, No.11, pp.53-61, (2010)
- 増田周平, 西村 修  
 「水処理工程におけるN<sub>2</sub>Oの発生特性」  
 用水と廃水, Vol.52, No.3, pp.41-54, (2010)
- 長濱祐美, 西村 修, 増田周平, 小澤敬二, 原田久志, 川崎貴之  
 「秋田港の港内長周期波対策施設における生物共生効果」  
 環境工学研究論文集, Vol.47, pp.229-235, (2010)
- 桑本裕二  
 「若者ことば 不思議のヒミツ」  
 秋田魁新報社, 208頁, (2010.7)
- 上林一彦, 成田 章  
 「L1<sub>0</sub> FePt系合金における強磁性-反強磁性転移材料の探索と出現機構の解明」—第一原理計算によるアプローチ—  
 電気情報通信学会 信学技報, Vol.10, No.255, pp.7-9, (2010)
- Youji Yoshii  
 "Locally Extended Affine Root Systems"  
*Quantum Affine Algebras, Extended Affine Lie Algebras, and Their Applications*, Contemp. Math., 506, Amer. Math. Soc., Providence, RI, pp.285-302, (2010)
- Kazuhiko Uebayashi  
 "Structure and magnetism of pseudo-binary L10 alloy FePtM(M=Ir, Au)"  
*Journal of Applied Physics*, Vol.107, pp.09A733-09A733-2, (2010)