

2010 <A01 班>

2011 年 5 月 30 日

【原著論文】 リスト

研究代表者：垣花 真人

1. Masayoshi Nakamura, Hideki Kato, Yuji Takatsuka, Valery Petrykin, Satoko Tezuka, and *Masato Kakihana, “Synthesis and Luminescence Properties of a Cyan-blue Thiosilicate-based Phosphor $\text{SrSi}_2\text{S}_5:\text{Eu}^{2+}$ ”, *J. Information Display*, **11**(4), 135-139 (2010).
2. Ryotaro Yanagisawa, Valery Petrykin, and *Masato Kakihana, “水溶液プロセスによる $\text{Ba}_3\text{Ta}_6\text{Si}_4\text{O}_{26}$ の合成およびその光触媒活性”, *J. Jpn. Soc. Powder & Powder Metall.*, **57**(11), 701-705 (2010).
3. Taichi Yamaguchi, Yoshihito Suzuki, and *Masato Kakihana, “水溶性ケイ素化合物を用いた水熱ゲル化法による $(\text{Ca,Ce})_3\text{Sc}_2\text{Si}_3\text{O}_{12}$ 蛍光体の低温単相合成”, *J. Jpn. Soc. Powder & Powder Metall.*, **57**(11), 706-710 (2010).
4. Valery Petrykin, Maki Okube, Hisanori Yamane, Satoshi Sasaki, and *Masato Kakihana, “ Sr_2ZnS_3 : Crystal Structure and Fluorescent Properties of a New Eu(II)-Activated Yellow Emission Phosphor”, *Chem. Mater.*, **22**(21), 5800-5802 (2010).
5. 手束聡子, 鈴木義仁, Valery Petrykin, *垣花真人, “水溶性ケイ素化合物を用いた水溶液法での $\text{Ba}_2\text{SiS}_4:\text{Eu}^{2+}$ 蛍光体の効果的な合成”, *希土類(Rare Earths)*, **56**, 60-61 (2010): 第27回希土類討論会, 福岡, 2010年5月27日-28日.
6. *Masato Kakihana and Valery Petrykin, “Synthesis of High Performance Phosphors by Advanced Solution Methods”, *Technical digest of the 10th International Meeting on Information Display*, **148-149** (2010): *IMID2010*, Korea, October 11-15, 2010.
7. Taichi Yamaguchi, Hideki Kato, and *Masato Kakihana, “Photoluminescent Properties of New Eu^{2+} -Activated Sodium Calcium Silicate Phosphors Prepared by Advanced Aqueous Solution Method”, *Technical digest of the 10th International Meeting on Information Display*, 626-627 (2010): *IMID2010*, Korea, October 11-15, 2010.
8. Kohei Yoshizawa, Yoshihito Suzuki, Hideki Kato, and *Masato Kakihana, “Low-temperature Synthesis of $\text{Zn}_2\text{SiO}_4:\text{Mn}$ Phosphor with High Purity and Strong Emission by a Homogeneous Precipitation Method in Combination with Novel Water-soluble Silicon Compounds”, *Technical digest of the 10th International Meeting on Information Display*, 614-615 (2010): *IMID2010*, Korea, October 11-15, 2010.
9. Jihae Kim, Satoko Tezuka, Hideki Kato, and *Masato Kakihana, “Parallel Solution-Based Synthesis Approach for Search of Eu^{2+} -activated MAiSi_xO_y with $\text{M}=\text{Li, Na and K}$ ”, *Technical digest of the 10th International Meeting on Information Display*, 196-197 (2010): *IMID2010*, Korea, October 11-15, 2010.

10. Masayoshi Nakamura, Satoko Tezuka, Yuji Takatsuka, Valery Petrykin, Hideki Kato, and *Masato Kakihana, “Luminescent Properties of a New Cyan-blue Phosphor $\text{SrSi}_2\text{S}_5:\text{Eu}^{2+}$ Prepared by an Advanced Chemical Method”, *Technical digest of the 10th International Meeting on Information Display*, 610-611 (2010) : 「IMID2010」, Korea, October 11-15, 2010.
11. Chihiro Yasushita, Hideki Kato, and *Masato Kakihana, “Chemical Synthesis of Eu^{2+} -doped Barium Silicate Phosphors by Advanced Aqueous Solution Method using Novel Water-Soluble Silicon Compound”, *Technical digest of the 10th International Meeting on Information Display*, 622-623 (2010) : 「IMID2010」, Korea, October 11-15, 2010.

研究代表者：加藤 隆史

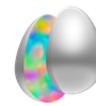
1. Anton E. Frise, Sergey V. Dvinskikh, Hiroyuki Ohno, *Takashi Kato, and *Istvan Furo, “Ion Channels and Anisotropic Ion Mobility in a Liquid-Crystalline Columnar Phase as Observed by Multinuclear NMR Diffusometry”, *The Journal of Physical Chemistry B*, **114**, 15477-15479 (2010).
2. †Yuya Oaki, Hiroyuki Ohno, and *Takashi Kato, “Nanosegregated Composites of an Imidazolium Salt and a Layered Inorganic Compound: Organization of both Anions and Cations in Interlayer Space”, *Nanoscale*, **2**, 2362–2365 (2010).
†A03 班連携研究者、A03 との共同研究
3. Midori Nuita, Junji Sakuda, Yuki Hirai, *Masahiro Funahashi, and *Takashi Kato, “Hole Transport of a Liquid-Crystalline Phenylterthiophene Derivative Exhibiting the Nematic Phase at Ambient Temperature”, *Chemistry Letters*, **40**, 412-413 (2011).
4. *Tatsuya Nishimura, Hirotaka Imai, †Yuya Oaki, Takeshi Sakamoto, and *Takashi Kato, “Preparation of Thin-Film Hydroxyapatite/Polymer Hybrids”, *Chemistry Letters*, **40**, 458-460 (2011). [Selected as Editor’s Choice]
†A03 班連携研究者、A03 との共同研究
5. Takeshi Sakamoto, Yosuke Nishimura, Tatsuya Nishimura, and *Takashi Kato, “Photoimaging of Self-Organized CaCO_3 /Polymer Hybrid Films by Formation of Regular Relief and Flat Surface Morphologies”, *Angewandte Chemie International Edition*, accepted for publication.

研究代表者：灘 浩樹

1. *Hiroki Nada, “Analysis of Ice Crystal Growth Shape under High Pressure using Molecular Dynamics Simulation”, *Cryst. Growth & Des.*, in press.
2. *Hiroki Nada, Salvador Zepeda, Hitoshi Miura and Yoshinori Furukawa, “Significant Alternations in Anisotropic Ice Growth Rate induced by the Ice Nucleation-active Bacteria *Xanthomonas Campestris*”, *Chem. Phys. Lett.*, **498**, 101-106 (2010).
3. *Hiroki Nada, “A Challenge to Observe Ice Growth Shape in Molecular Dynamics Simulation”, *Physics and Chemistry of Ice 2010*, 293-298 (2011): *12th International Symposium on Physics and Chemistry of Ice*, Sapporo, September 6-10, 2010.
4. *Hiroki Nada and Yoshinori Furukawa, “Growth Mechanism of a Hexagonal Bipyramidal Ice Crystal in the presence of Winter Flounder Antifreeze Proteins”, *Physics and Chemistry of Ice 2010*, 429-436 (2011): *12th International Symposium on Physics and Chemistry of Ice*, Sapporo, September 6-10, 2010.

研究代表者：鳴瀧（菅原） 彩絵

1. Junzheng Wang, Ayae Sugawara-Narutaki, Masashi Fukao, Toshiyuki Yokoi, Atsushi Shimojima, and *Tatsuya Okubo, “Two-Phase Synthesis of Monodisperse Silica Nanospheres with Amines or Ammonia Catalyst and Their Controlled Self-Assembly”, *ACS Appl. Mater. Interfaces*, in press.
2. Watcharop Chaikittisilp, Ayae Sugawara, Atsushi Shimojima, and *Tatsuya Okubo, “Microporous Hybrid Polymer with a Certain Crystallinity Built from Functionalized Cubic Siloxane Cages as a Singular Building Unit”, *Chem. Mater.*, **22**, 4841-4843 (2010).
3. Ralf Supplitt, Ayae Sugawara, Herwig Peterlik, Ryuji Kikuchi, and *Tatsuya Okubo, “Supported and Free-Standing Sulfonic Acid Functionalized Mesostructured Silica Films with High Proton Conductivity”, *Eur. J. Inorg. Chem.*, **25**, 3993-3999 (2010).



2010 <A01 班>

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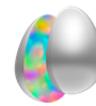
【総説・解説】リスト

研究代表者：垣花 真人

1. *Masato Kakihana, Makoto Kobayashi, †Koji Tomita, and Valery Petrykin, “Application of Water-Soluble Titanium Complexes as Precursors for Synthesis of Titanium-Containing Oxides via Aqueous Solution Processes”, *Bull. Chem. Soc. Jpn.*, **83**, 1285-1308 (2010). (招待論文) (査読有) †A03 班 研究分担者、A03 との共同研究
(Award Accounts: The Chemical Society of Japan Award for Creative Work for 2007)

研究代表者：加藤 隆史

1. *Takashi Kato, Yoshiko Shoji, Masafumi Yoshio, Shogo Yamane, and Takuma Yasuda, “Functional Soft Materials: Nanostructured Liquid Crystals and Self-Assembled Fibrous Aggregates”, *J. Synth. Org. Chem. Jpn.*, **68**, 1169-1174 (2010). (招待論文) (査読有)
2. 梶山智司, 西村達也, *加藤隆史, “バイオミネラリゼーションに学ぶハイブリッド材料”, *機能材料*, **30**, 23-28 (2010). (査読無)



2010 <A01 班>

2011 年 5 月 30 日

【著書等】(監修・分担執筆を含む) リスト

研究代表者：加藤 隆史

1. “液晶—構造制御と機能化の最前線—”, 監修/加藤隆史, シーエムシー出版 (2010 年 7 月).
2. 西村達也, 加藤隆史, “液晶をテンプレートとした無機結晶成長制御とハイブリッド構造形成”, 液晶—構造制御と機能化の最前線—, 監修/加藤隆史, pp. 111-115, シーエムシー出版 (2010). (分担執筆)
3. 一川尚広, 吉尾正史, 大野弘幸, 加藤隆史, “イオン液体のナノ組織化”, イオン液体の科学—新世代液体への挑戦—, 監修/イオン液体研究会, 丸善株式会社, 印刷中 (分担執筆)