研究業績

2017 年

【査読付き学術論文】

1) “Voltammetric and Spectroscopic Studies of α- and β- $[PW_{12}O_{40}]^{3-}$ Polyoxometalates in Neutral and Acidic Media: Structural Characterization as Their $[(n\text{-}Bu_4N)_3][PW_{12}O_{40}]$ Salts”, T. Ueda, K. Kodani, H. Ota, M. Shiro, S-X. Guo, J. F. Boas, A. M. Bond, Inorg. Chem., 56, 3990-4001 (2017).
2) “Microwave-assisted hydrolysis of biomass over activated carbon supported polyoxometalate”, S. Tsubaki, K. Oono, A. Onda, T. Ueda, T. Mitani, M. Hiraoka, RSC Adv., 7, 12346-12350 (2017).
3) “Heteropoly Acid Supported on Silica Gel Catalyzed the Asymmetric Transfer Allylation of Aromatic Aldehydes under Solvent-free Conditions”, S. Nunokawa, K. Oki, K. Yamashita, A. Okuyama, T. Ueda, K. Nakano, Y. Ichikawa, H. Kotsuki, Synlett, 28,597-600 (2017). **FRONT COVER**
4) “Rapid Hydrothermal Synthesis of $SrMo_{1-x}W_xO_4$ Powders: Structure and Luminescence Characterization”, J.C. Rendón-Angeles, Z. Matamoros-Veloza, L.A. Gonzalez, J. López-Cuevas, T. Ueda, K. Yanagisawa, I. Hernández-Calderón, M. Garcia-Rocha, Advanced Powder Technology, 28, 629-640 (2017).
5) “Yellow $MgV_2O_6 \cdot 2H_2O$ nanophosphor synthesized by a water-assisted solid-state reaction (WASSR) method at low temperature below 80 ° C”, S.W. Kim, Y. Abe, M. Watanabe, T. Hasegawa, M. Muto, K. Toda, A. Toda, T. Ishigaki, K. Uematsu, M. Sato, E. Kawakami, J. Koide, M. Toda, Y. Kudo, T. Masui, T. Masaki and D.H. Yoon, Dyes and Pigments, accepted (2017).
6) “Improvement of Luminescence Properties of Rubidium Vanadate, $RbVO_3$ Phosphor by Erbium Doping in the Crystal Lattice”, S.W. Kim, T. Hasegawa, M. Muto, A. Toda, T. Kaneko, K. Sugimoto, K. Uematsu, T. Ishigaki, K. Toda, M. Sato, J. Koide, M. Toda, and Y. Kudo, New J. Chem., 41, 4788-4792 (2017).
7) “Determination of Crystal Structure and Photoluminescence Properties of $NaEu_{1-x}Gd_x(MoO_4)_2$ Phosphor Synthesised by Water-Assisted Low-Temperature Synthesis Technique”, T. Hasegawa, S.W. Kim, Y. Abe, M. Muto, M. Watanabe, T. Kaneko, K. Uematsu, T. Ishigaki, K. Toda, M. Sato, J. Koide, M. Toda and Y. Kudo, RSC Adv., 7, 25089-25094 (2017).
8) “Luminescence of Phosphor Balls Prepared Using Melt Quenching Synthesis Method”, T. Hasegawa, K. Toda, T. Ishigaki, S. Kamei, S.W. Kim, K. Uematsu, M.

Sato and M. Yoshimura, Mater. Sci. Forum, 883, 17-21 (2017).

9) “Discovery of Novel Inorganic Mn^{5+}-doped Sky-blue Pigments Based on $Ca_6BaP_4O_{17}$: Crystal structure, Optical and Color Properties, and Color Durability”, S.W. Kim, G.E. Sim, J.Y. Ock, J.H. Son, T. Hasegawa, K. Toda and D.S. Bae, Dyes and Pigments, 139, 344-348 (2017).
10) “Environmentally friendly $Rb_3V_5O_{14}$ fluorescent red pigment”, S.W. Kim, T. Hasegawa, M. Watanabe, K. Sugimoto, Y. Saito, K. Uematsu, K. Toda and M. Sato, Dyes and Pigments, 136, 219-223 (2017).
11) “Development of a novel nontoxic vivid violet inorganic pigment − Mn^{3+}-doped $LaAlGe_2O_7$”, S.W. Kim, Y. Saito, T. Hasegawa, K. Toda, K. Uematsu and M. Sato, Dyes and Pigments, 136, 243-247 (2017).
12) “On the possibility of polystyrene-derived carbon coating for NASICON-type $Na_3V_2(PO_4)_3$ composites as cathode materials for sodium-ion batteries”, D. Okada, T. Fugane, Y. Matsumoto, T. Hasegawa, A. Itadani, K. Uematsu, K. Toda, H. Hashimoto, J. Takada and M. Sato, J. Ceram. Soc. Jpn., 125 (4), 322-325 (2017).

【和文論文・総説・著書】

1) レアメタルを使って色々と役に立つ新しい物質を作る―ポリオキソメタレート錯体の化学―, 未来の資源に向かって―高知大学におけるレアメタルをキーワードとした研究について―, 中島出版, 112-118 (2017)
2) “Microwave-Assisted Hydrothermal Processing of Seaweed Biomass”, Shuntaro Tsubaki, Ayumu Onda, Tadaharu Ueda, Masanori Hiraoka, Satoshi Fujii, Yuji Wada, Hydrothermal Processing in Biorefineries: Production of Bioethanol and High Added-Value Compounds of Second and Third Generation Biomass, Springer, 443-460 (2017).

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1) ポリオキソメタレート錯体とイオン性液体を用いたグリーンな資源からのエネルギー創出，特別研究員奨励費（代表：上田忠治），H28-H29 年度，総額 2,300 千円
2) 遷移金属の CT 遷移を青色吸収源とする Eu^{3+}賦活赤色蛍光体の創製，若手研

究（B）（代表：長谷川拓哉），H29-H31 年度，総額 3,300 千円

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