

B. 研究活動

1. 研究論文

物質化学科

Shinya YAMAZAKI, Shoji KANEKO, Yuta TAKAHASHI, Yoshihiko AMANO

Effect of citric acid and calcium chloride combined with medium high hydrostatic pressure–medium high temperature on polyphenol oxidase activity and browning in Fuji apple compote. *Food Science and Technology Research*, 29, 3, 269–275, 2023.

DOI:10.3136/fstr.FSTR-D-22-00132.

Susumu Arai, Soichiro Nakajima, Masahiro Shimizu, Masaomi Horita, Mitsuhiro Aizawa, Oi Kiyoshi

Direct Cu–Cu bonding by low–temperature sintering using three–dimensional nanostructured plated Cu films. *Mater. Today Commun.*, 35, 175090, 2023.

<https://doi.org/10.1016/j.mtcomm.2023.105790>

Yuji Fujimori, Masahiro Shimizu, Tadashi Kurashina, Susumu Arai

Electroplated Ni–P film for power devices without cracks induced by high temperature heating. *Microelectron. Reliab.*, 133, 114547, 2022.

<https://doi.org/10.1016/j.microrel.2022.114547>

Masahiro Shimizu, Yusuke Sugiyama, Masaomi Horita, Kazuki Yoshii, Susumu Arai

Cation–Structure Effects on Zinc Electrodeposition and Crystallographic Orientation in Ionic Liquids. *ChemElectroChem.*, 9, e202200016, 2022.

<https://doi.org/10.1002/celec.202200357>

Izadora R. S. Menezes, Toshio Sakai, Yoshiyuki Hattori, Katsumi Kaneko

Effect of preheating temperature on adsorption of N₂ and Ar on graphene oxide. *Chemical Physics Letters*, 807, 140091, 2022.

<https://doi.org/10.1016/j.cplett.2022.140091>

Yuito Kamijyou, Radovan Kukobat, Ayumi Furuse, Hayato Otsuka, Kazunori Fujisawa, Takuya Hayashi,

Toshio Sakai, Katsumi Kaneko

Pore structure changes in free–standing single–wall carbon nanotube film on vacuum high–temperature annealing. *Carbon Trends*, 9, 100230, 2022.

<https://doi.org/10.1016/j.cartre.2022.100230>

Izadora R. S. Menezes, Natália R. S. Araújo, Bárbara C. R. Araújo, Toshio Sakai, Rochel M. Lago,

Rita C. O. Sebastião

Shedding light on the mechanism of graphene oxide thermal decomposition: A kinetic study using isoconversional method and artificial neural network. *Thermochimica Acta*, 721, 179454, 2023.

<https://doi.org/10.1016/j.tca.2023.179454>

Izadora R. S. Menezes, Toshio Sakai, Katsumi Kaneko

Evaluation of graphene oxide nanoporosity by multiprobe gas adsorption analysis. *Journal of Materials Science*, 58, 4439–4449, 2023.

DOI: 10.1007/s10853-023-08262-4

D. Kim, H. Shiiba, K. Teshima, N. Zettsu

Li⁺ Storage and Transport in High–Voltage Spinel–Type LiNi_{0.5}Mn_{1.5}O₄ Codoped with F[–] and Cu²⁺. *Journal of Materials Chemistry A*, 11, 838–848, 2023.

<https://doi.org/10.1039/D2TA08199G>

Tian Tan, Pui-Kit Lee, Mayeesha Marium, Nobuyuki Zettsu, Denis Y. W. Yu

(3-Aminopropyl) triethoxysilane as an Electrolyte Additive for Enhancing the Thermal Stability of Silicon Anode in Lithium-Ion Batteries. *Applied Energy Materials*, 5, 11254-11262, 2022.

<https://doi.org/10.1021/acsaem.2c01816>

Tian Tan, Pui-Kit Lee, Nobuyuki Zettsu, Katsuya Teshima, Denis Y. W. Yu

Passivating oxygen atoms in SiO through pre-treatment with Na₂CO₃ to increase its first cycle efficiency for lithium-ion batteries. *Electrochimica Acta*, 404, 139777, 2022.

<https://doi.org/10.1016/j.electacta.2021.139777>

Seiichi Taruta, Tomohiro Inoue, Shoya Miyake, Ayana Tsubata, Junnosuke Kemi

Synthesis and ionic conductivity of novel high charged tetrasilic type micas. *Appl. Clay Sci.*, 229, 106670, 2022.

<https://doi.org/10.1016/j.clay.2022.106670>

Mirabbos Hojamberdiev, Ronald Vargas, Zukhra C. Kadirova, Kosaku Kato, Hadi Sena, Aleksei G. Krasnov,

Akira Yamakata, Katsuya Teshima, Martin Lerch

Unfolding the role of b-site-selective doping of aliovalent cations on enhancing sacrificial visible-light-induced photocatalytic H₂ and O₂ evolution over BaTaO₂N. *ACS Catalysis*, 12, 2, 1403-1414, 2022.

<https://doi.org/10.1021/acscatal.1c04547>

Mongkol Tipplook, Gasidit Panomsuwan, Tomohito Sudare, Katsuya Teshima

Graphitic carbon nitride nanoflakes decorated on multielement-doped carbon as photocatalysts for bacterial disinfection under visible and near-infrared light. *ACS Applied Nano Materials*, 5, 3, 3422-3433, 2022.

<https://doi.org/10.1021/acsanm.1c03980>

Ken Mizoi, Vicente Rodriguez-Gonzalez, Mao Sasaki, Shoki Suzuki, Kaede Honda, Naoya Ishida,

Kazuyuki Kuchitsu, Takeshi Kondo, Makoto Yuasa, Akira Fujishima, Katsuya Teshima, Chiaki Terashima

Interactions between pH, reactive species, and cells in plasma-activated water can remove algae. *RCS Advances*, 12, 13, 7626-7634, 2022.

<https://doi.org/10.1039/D1RA07774K>

Kazuyuki Shishino, Tetsuya Yamada, Kazunori Fujisawa, Masashi Motoi, Tatsuo Hatakeyama, Katsuya Teshima

Growth of polyhedral LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ crystals in a Molten Li₃BO₃ flux and their role in electrode density and dispersion design. *ACS Applied Energy Materials*, 5, 3, 2747-2757, 2022.

<https://doi.org/10.1021/acsaem.1c03269>

Tetsuya Yamada, Takanori Watanabe, Kazuaki Hatsusaka, Jianjun Yuan, Michihisa Koyama, Katsuya Teshima

Importance of raw material features for the prediction of flux growth of Al₂O₃ crystals using machine learning. *CrystEngComm*, 24, 3179-3188, 2022.

<https://doi.org/10.1039/D2CE00010E>

Mirabbos Hojamberdiev, Ronald Vargas, J. Manuel Mora-Hernandez, Eva Maria Heppke, Kunio Yubuta,

Zukhra C. Kadirova, Leticia M. Torres-Martínez, Katsuya Teshima, Martin Lerch

Eliciting the contribution of TiN to photoelectrochemical performance enhancement of Imma-LaTiO₂N at neutral pH. *Materials Today Energy*, 27, 101053, 2022.

<https://doi.org/10.1016/j.mtener.2022.101053>

Fumitaka Hayashi, Kenta Furui, Nanako Tatewaki, Tomohito Sudare, Maru Kashiwazaki, Hiromasa Shiiba,

Hideki Tanaka, Michihisa Koyama, Chiaki Terashima, Katsuya Teshima

Liquid exfoliation of five-coordinate layered titanate K₂Ti₂O₅ single crystals in water. *CrystEngComm*, 24, 28, 5112-5119, 2022.

<https://doi.org/10.1039/D2CE00512C>

Mirabbos Hojamberdiev, Ronald Vargas, Zuhra C. Kadirova, Katsuya Teshima, Martin Lerch

Exploring the effect of B-site Al^{3+} - Mg^{2+} dual substitution on optoelectronic, surface, and photocatalytic properties of BaTaO_2N . *Materials Advances*, 3, 19, 7348-7359, 2022.

<https://doi.org/10.1039/D2MA00611A>

Soichiro Kambe, Tetsuya Yamada, Sayaka Suzuki, Katsuya Teshima

Solubility of measurements of NaTaO_3 in molten Na_2MO_4 (M=Mo, W, S) and growth of milli-order crystals at high frequency. *ACS Omega*, 7, 33, 28904-28911, 2022.

<https://doi.org/10.1021/acsomega.2c02106>

Kazuyuki Shishino, Tetsuya Yamada, Yoshiyuki Arai, Katsuya Teshima

Ionic-liquid-based design of recyclable NCM523 electrode with binder-free, high crystalline characteristics. *ACS Sustainable Chemistry & Engineering*, 10, 38, 12721-12729, 2022.

<https://doi.org/10.1021/acssuschemeng.2c03573>

Tomohito Sudare, Shuhei Tamura, Maru Kashiwazaki, Yuki Nakamura, Kenta Kawaguchi, Hiromasa Shiiba,

Kazunori Fujisawa, Mongkol Tipplook, Hideki Tanaka, Fumitaka Hayashi, Katsuya Teshima

Charge distribution controls on-target separation of low-nucleophilicity anions in layered double hydroxides. *Advanced Materials Interfaces*, 9, 31, 2201484_1-10, 2022.

<https://doi.org/10.1002/admi.202201484>

Fumitaka Hayashi, Kanako Tatewaki, Tomohito Sudare, Chiaki Terashima, Katsuya Teshima

High Li-ion selectivity of five-coordinate layered titanate $\text{K}_2\text{Ti}_2\text{O}_5$. *Langmuir*, 38, 43, 13288-13295, 2022.

<https://doi.org/10.1021/acs.langmuir.2c02443>

Tomohito Sudare, Takuro Yamaguchi, Mizuki Ueda, Hiromasa Shiiba, Hideki Tanaka, Mongkol Tipplook,

Fumitaka Hayashi, Katsuya Teshima

Critical role of water structure around interlayer ions for ion storage in layered double hydroxides. *Nature Communications*, 13, 6448_1-9, 2022.

<https://doi.org/10.1038/s41467-022-34124-9>

獅野和幸, 山田哲也, 新井義之, 手嶋勝弥

適用的実験計画法を利用した結晶搭載型 $\text{LiNi}_{0.5}\text{Co}_{0.2}\text{Mn}_{0.3}\text{O}_2$ 電極における高分離電極構造の探索. *Journal of Flux Growth*, 16, 2, 40-46, 2022.

Tomohito Sudare, Kenta Kawaguchi, Kazuse Yamaguchi, Kazuki Hirono, Mongkol Tipplook, Hideki Tanaka,

Fumitaka Hayashi, Katsuya Teshima

Extended solid-solubility limit in layered double hydroxides:Tuning the anion-adsorption selectivity. *Chemistry of Materials*, 34, 23, 10681-10690, 2022.

<https://doi.org/10.1021/acs.chemmater.2c02829>

Omari Sufiani, Joyce Elisadiki, Hideki Tanaka, Katsuya Teshima, Mtabazi G Sahini, Revocatus L Machunda,

Yusufu Abeid Chande Jande

Adsorption-capacitive deionization hybrid system with activated carbon of modified surface charges. *Environmental Research*, 219, 115114_1-8, 2023.

<https://doi.org/10.1016/j.envres.2022.115114>

Tetsuya Yamada, Kazuyuki Shishino, Yo Doya, Kazunori Fujisawa, Katsuya Teshima

Individual effects of flux species as a reaction field on coprecipitation precursor toward design of fine, mono-dispersed $\text{LiNi}_{0.5}\text{Co}_{0.2}\text{Mn}_{0.3}\text{O}_2$ single crystal. *ACS Applied Energy Materials*, 6, 1, 245-256, 2023.

<https://doi.org/10.1021/acsaem.2c02884>

Daigo Kaneko, Hiromasa Kaneko, Fumitaka Hayashi, Kohei Fukaishi, Tetsuya Yamada, Katsuya Teshima

- Process-informatics-assisted preparation of lithium titanate crystals with various sizes and morphologies. *Industrial & Engineering Chemistry Research*, 62, 1, 511–518, 2023.
- Tomohito Sudare, Mizuki Ueda, Takuro Yamaguchi, Mongkol Tipplook, Hideki Tanaka, Fumitaka Hayashi, Katsuya Teshima
Layer-stacking sequence governs ion-storage in layered double hydroxides. *Journal of Physical Chemistry Letters*, 14, 2, 584–591, 2023.
<https://doi.org/10.1021/acs.jpcllett.2c03553>
- 森脇聖貴, 林 文隆, 山田哲也, 手嶋勝弥
六ニオブ酸カリウム結晶のフラックス成長のその場観察. *日本材料科学会誌材料の科学と工学*, 60, 2, 67–71, 2023.
- Dylan Shun Izuma, Norihiro Suzuki, Tomonori Suzuki, Haruka Motomura, Shiro Ando, Akira Fujishima, Katsuya Teshima, Chiaki Terashima
A floatable and highly water-durable TiO₂-coated net for photocatalytic antibacterial water treatment in developing countries. *Water*, 15, 2, 320_1–13, 2023.
<https://doi.org/10.3390/w15020320>
- Yuki Hirami, Yuvaraj M Hunge, Norihiro Suzuki, Vicente Rodríguez-González, Takeshi Kondo, Makoto Yuasa, Akira Fujishima, Katsuya Teshima, Chiaki Terashima
Enhanced degradation of ibuprofen using a combined treatment of plasma and Fenton reactions. *Journal of Colloid and Interface Science*, 642, 829–836, 2023.
<https://doi.org/10.1016/j.jcis.2023.02.136>
- Katsunori Nakase, Shunta Ichihara, Jumpei Matsumoto, Sangho Koh, Masahiro Mizuno, Tomohiko Okada
Acceleration of the dehydrogenation of D-glucose to 2-keto-D-gluconate in aqueous amino acid via hydrated stacked clay nanosheets. *Langmuir*, 38, 19, 6076–6085, 2022.
<https://doi.org/10.1021/acs.langmuir.2c00387>
- Mitsuhiro Itaya, Mitsuru Sato, Satoru Watanabe, Masakazu Kataoka
Effective plasmid delivery to a plasmid-free *Bacillus natto* strain by a conjugational transfer system. *J. Biochem*, 172, 313–319, 2022.
<https://doi.org/10.1093/jb/mvac069>
- Mori H, Kataoka M, Yang X.
Past, present, and future of genome modification in *Escherichia coli*. *Microorganisms*, 10, 1835, 2022.
DOI:10.3390/microorganisms10091835.
- 片岡正和
pHホメオスタシスってなんですか?. *生産と技術*, 74, 2, 96, 2022.
- Yasunori Toda, Airi Kooguchi, Kimiya Sukegawa, Ayaka Kikuchi, Hiroyuki Suga
Ring-fused hexahydro-1,2,4,5-tetrazines: synthesis, structure, and mechanistic studies on isolable rotational isomers. *Chem. Commun.*, 59, 700–703, 2023.
<https://doi.org/10.1039/D2CC06170H>
- Yasunori Toda, Ryota Shiokawa, Masaya Iwasaki, Daisuke Yamaguchi, Keisuke Kawamura, Kimiya Sukegawa, Hiroyuki Suga
Tetraarylphosphonium salt-catalyzed formal [3+2] cycloaddition between epoxides and trichloroacetonitrile for the synthesis of β -amino alcohol derivatives. *Chem. Commun.*, 58, 11819–11822, 2022.
<https://doi.org/10.1039/D2CC03782C>
- Yasunori Toda, Kayo Sato, Kensuke Sato, Kazuma Nagasaki, Hirotaka Nakajima, Ayaka Kikuchi, Kimiya Sukegawa, Hiroyuki Suga

Asymmetric cycloadditions of acyclic carbonyl ylides with aldehydes catalyzed by a chiral binaphthylidimine-Ni(II) complex: enantioselective synthesis of 1, 3-dioxolanes and mechanistic studies by DFT calculations. *Org. Lett.*, 24, 26, 4739-4744, 2022.

<https://doi.org/10.1021/acs.orglett.2c01682>

Yosuke Kageshima, So Kato, Sota Shiga, Fumiaki Takagi, Hikari Minamisawa, Masaomi Horita, Tomohiko Yamakami, Katsuya Teshima, Kazunari Domen, Hiromasa Nishikiori

Impact of ball milling on the hydrogen evolution performance of $\text{Cu}_2\text{Sn}_{0.38}\text{Ge}_{0.62}\text{S}_3$ photocatalytic particles synthesized via a flux method. *ACS Appl. Mater. Interfaces*, 15, 10, 13108-13120, 2023.

<https://doi.org/10.1021/acsami.2c23103>

Yosuke Kageshima, Hiromasa Wada, Katsuya Teshima, Hiromasa Nishikiori

Hydrogen evolution and electric power generation through photoelectrochemical oxidation of cellulose dissolved in aqueous solution. *Appl. Catal. B*, 327, 122431, 2023.

<https://doi.org/10.1016/j.apcatb.2023.122431>

藤村太一郎, 矢追隆利, 佐伯大輔, 松山秀人, 佐藤真直

X線小角散乱法による乳化香料（フレーバー）の相構造解析. 帝塚山大学現代生活学部紀要, 19, 13-19, 2023.

電子情報システム工学科

Hugo Monzon Maldonado, Hernan Aguirre, Sebastien Verel, Arnaud Liefoghe, Bilel Derbel, Kiyoshi Tanaka

Estimating Hypervolume using Population Features from Dynamic Compartmental Models. *進化計算学会論文誌*, 12, 1, 12-25, 2022.

Felipe Honjo Ide, H. Aguirre, M. Miyakawa, D. Whitley

Study of Constraint Handling Techniques for MOEAs on SAT Constrained 0-1 Bi-Objective Knapsack Problems. *Transaction of the Japanese Society for Evolutionary Computation*, 13, 1, 52-65, 2022.

Eiji Itoh, Sosei Yamane, Katsutoshi Fukuda

Fabrication of inverted inorganic-organic quantum-dot light-emitting diodes with solution-processed n-type oxide electron injection layers and QD-polymer blend light-emitting layers. *Japanese Journal of Applied Physics*, 61, SE1018, 2022.

DOI 10.35848/1347-4065/ac55dc

Hitoshi Kiryu, Satoshi Suda, Shinpei Ogata, Kozo Okano

Verification of shell script behavior by comparing execution log. *International Journal of Informatics Society*, 14, 2, 55-64, 2022.

Chellet Marwan Bernard Hassan, Shinpei Ogata, Kozo Okano

Executable counterexample for Java model checker. *International Journal of Informatics Society*, 13, 3, 107-114, 2022.

香山瑞恵, 永井 孝, 足助武彦

初等中等教育段階での「データの活用」関連単元向けビジュアルプログラミング環境の提案. *教育システム情報学会学会誌*, 39, 2, 224-234, 2022.

<https://doi.org/10.14926/jsise.39.224>

Ren Hiraoka, Yuya Aoyagi, Kazuki Kobayashi

Automatic travelling of agricultural support robot for a fruit farm-verification of effectiveness of RTK-GNSS and developed simulator for specification design. *Journal of Agricultural Engineering*, 54, 1, 2023.

Takaya Hondo, Kazuki Kobayashi, Yuya Aoyagi

Real-time prediction of growth characteristics for individual fruits using deep learning. *Sensors*, 22, 17, 2022.

<https://doi.org/10.3390/s22176473>

Misato Uehara, Makoto Fujii, Kazuki Kobayashi, Keita Shiba

Narrative-based disaster learning programmes simultaneously improve people's disaster awareness scores, willingness to pay and settlement preferences. *Sustainability*, 14, 11, 2022.

Keisuke Kaneko, Fumihito Sasamori, Masao Okuhara, Suchinda Jarupat Maruo, Kazuki Ashida, Hisaaki Tabuchi, Hisaki Akasaki, Kazuki Kobayashi, Yuya Aoyagi, Noriaki Watanabe, Tomoyuki Nishino, Koji Terasawa

Evaluation of a dementia prevention program to improve health and social care and promote human rights among older adults. *International Journal of Human Rights in Healthcare*, 1-12, 2022.

<https://doi.org/10.1108/IJHRH-12-2021-0206>

Terasawa Koji, Gede Adiatmika I Putu, Nyoman Adiputra I, Maruo Suchinda Jarupat, Kalampakorn Surintorn, Watanabe Toshiaki, Sasamori Fumihito, Kobayashi Kazuki, Akasaki Hisaki, Okuhara Masao, Uchiyama Ryoji, Ashida Kazuki, Tabuchi Hisaaki, Kayama Mizue, Futagami Takao, Nagai Takashi

Implementation of a health education program in Asia, comparing Thailand, Indonesia, and Japan. *Technology and Health Care*, 30, 4, 775-785, 2022.

DOI:10.3233/THC-202583

Thalita Munique COSTA, Lourenço BARBOSA, Yoko USAMI, Mai IWAYA, Kiyoshi TANAKA, Fabio SCHNEIDER

Evaluating YOLOv3 for Identification and Classification of Functional and Sclerosed Glomeruli. *IIEEJ Transactions on Image Electronics and Visual Computing*, 10, 1, 36-46, 2022.

Jaime Sandoval, Kazuma Uenishi, Munetoshi Iwakiri, Kiyoshi Tanaka

Robust Plane Detection in Terrestrial Laser Scanning Point Clouds using Efficient Multi-scale Sliding Voxels and Median Plane Weighted PCA. *IIEEJ Transactions on Image Electronics and Visual Computing*, 10, 1, 2-10, 2022.

岩瀬隆志, 岩切宗利, 田中 清

3次元自然形状に適した輪郭追跡法と遺構図作成支援への応用. *画像電子学会誌*, 52, 1, 214-220, 2023.

大崎翔太郎, ミョータンテイ, 橋本佳男

電解水池の開発~CZTS/CdSコアシェル粒子を含む光応答性隔離膜の影響~. *信学技報*, 122, 392, CPM2022-91, 23-26, 2023.

橋本雅則, ミョータンテイ, 橋本佳男

飽和蒸気圧硫化法によるCu₂SnS₃薄膜の作製. *信学技報*, 122, 392, CPM2022-92, 27-30, 2023.

山本直輝, ミョータンテイ, 橋本佳男

塩素添加SnS薄膜の作製. *信学技報*, 122, 392, CPM2022-93, 31-34, 2023.

永岡千枝, ミョータンテイ, 橋本佳男

陽極酸化法によるメモリスト向け酸化モリブデンの作製と評価. *信学技報*, 22, 231, CPM2022-45, 33-36, 2022.

Myo Than Htay, Osamu Imai, Kazutomo Kosaka, Noritaka Momose, Yoshio Hashimoto

Cu₂ZnSnS₄ thin-film solar cells by a closed tube sulfurization under saturated sulfur vapor pressure. *Jpn J. Appl. Phys.*, 61, 9, 095508, 2022.

藤川拓磨, 丸山 稔, 宮尾秀俊

画像識別CNNモデルのAMCによる圧縮における再接続の有効性検証. *情報処理学会論文誌*, 63, 6, 1309-1314, 2022.

Kosuke Ota, Keiichiro Shirai, Hidetoshi Miyao, Minoru Maruyama

Multimodal analogy-based image retrieval by improving semantic embeddings. *J. of Advanced Computational Intelligence and Intelligent Informatics*, 26, 6, 995-1003, 2022.

Mitsuhide Sato, Takuto Takemura, Tsutomu Mizuno

Voltage improvement of a swing-magnet-type generator for harvesting bicycle vibrations. *Energies*, 15, 13, 4360, 1-14, 2022.

<https://doi.org/10.3390/en15134630>

大森湧也, 近松具樹, 佐藤光秀, 水野 勉, 金子 亮, 關 淳史, 中山雄一郎

車上位置検知センサの寸法が検知感度に与える影響. *日本AEM学会誌*, 30, 2, 104-110, 2022.

Shoma Irie, Mitsuhide Sato, Tsutomu Mizuno, Fumiya Nishimura, Kaname Naganuma

Effect of nonlinear spring characteristics the efficiency of free-piston engine generator. *Energies*, 15, 20, 7579, 1-17, 2022.

<https://doi.org/10.3390/en15207579>

Ryo Yoshida, Jun Kitajima, Takashi Sakae, Mitsuhide Sato, Tsutomu Mizuno, Yuki Shimoda, Akihiro Kubota,

Shogo Wada, Teruo Kichiji, Hideo Kumagai

Effect of magnetic properties of magnetic composite tapes on motor losses. *Energies*, 15, 21, 7991, 1-16, 2022.

<https://doi.org/10.3390/en15217991>

田中大登, 志村和大, 佐藤光秀, 水野 勉

超高速モータの駆動周波数帯域に求められる磁性コンポジット材の検討. *日本AEM学会誌*, 30, 3, 335-341, 2022.

大森湧也, 近松具樹, 佐藤光秀, 水野 勉, 金子 亮, 關 淳史, 中山雄一郎

車上位置検知センサにおける金属体マーカの配置間隔の検討. *電気学会論文誌D*, 142, 11, 852-858, 2022.

大森湧也, 近松具樹, 佐藤光秀, 水野 勉, 金子 亮, 關 淳史, 中山雄一郎

磁気シールド板が鉄道車両用位置検知センサの検知感度に与える影響. *電気学会論文誌D*, 143, 1, 63-69, 2023.

堀内 学, 吉田 亮, 楡井雅巳, 佐藤光秀, 水野 勉

埋込磁石形同期モータの磁性くさびに使用する磁性コンポジット材の配合および混合条件. *電気学会論文誌D*, 143, 1, 70-77, 2023.

堀内 学, 吉田 亮, 楡井雅巳, 佐藤光秀, 水野 勉

磁性くさびを用いた埋込磁石形同期モータのトルクリプルおよび損失の低減. *電気学会論文誌D*, 143, 2, 157-165, 2023.

Keigo Ukita, Yasuaki Sakamoto, Mitsuhide Sato, Tsutomu Mizuno

Characteristics of self-excited rail brake with capacitor. *IEEJ Transactions on Electrical and Electronic Engineering*, 18, 3, 463-469, 2023.

<https://doi.org/10.1002/tee.23742>

Jing Xia, Xichao Zhang, Xiaoxi Liu, Yan Zhou, Motohiko Ezawa

Qubits based on merons in magnetic nanodisks. *Communications Materials*, 3, 88, 2022.

<https://doi.org/10.1038/s43246-022-00311-w>

Yinling Chen, Liwen Sang, Satoshi Koizumi, Yasuo Koide, Xiaoxi Liu, Meiyong Liao

Effect of gas pressure on the quality-factor of single-crystal diamond micro cantilevers. *Diamond and Related Materials*, 129, 109340, 2022.

<https://doi.org/10.1016/j.diamond.2022.109340>

Kentaro Ohara, Xichao Zhang, Yinling Chen, Satoshi Kato, Jing Xia, Motohiko Ezawa, Oleg A Tretiakov,

Zhipeng Hou, Yan Zhou, Guoping Zhao, Jinbo Yang, Xiaoxi Liu

Reversible transformation between isolated skyrmions and bimerons. *Nano Letters*, 22, 21, 8559-8566, 2022.

<https://doi.org/10.1021/acs.nanolett.2c03106>

Xichao Zhang, Jing Xia, Xiaoxi Liu

Particle-like skyrmions interacting with a funnel obstacle. *Physical Review B*, *Physical Review B*, 106, 9, 094418, 2022.

<https://doi.org/10.1103/PhysRevB.106.024412>

Jing Xia, Xichao Zhang, Xiaoxi Liu, Yan Zhou, Motohiko Ezawa

Nonlinear dynamics of the topological helicity wave in a frustrated skyrmion string. *Physical Review B*, 106, 5, 054414, 2022.

<https://doi.org/10.1103/PhysRevB.106.054414>

Yun Shu, Qianrui Li, Jing Xia, Ping Lai, Zhipeng Hou, Yonghong Zhao, Degang Zhang, Yan Zhou, Xiaoxi Liu, Guoping Zhao

Realization of the skyrmionic logic gates and diodes in the same racetrack with enhanced and modified edges. *Applied Physics Letters*, 121, 4, 042402, 2022.

<https://doi.org/10.1063/5.0097152>

Kai Yu Mak, Jing Xia, Xi-Chao Zhang, Li Li, Mouad Fattouhi, Motohiko Ezawa, Xiao-Xi Liu, Yan Zhou

Single-bit full adder and logic gate based on synthetic antiferromagnetic bilayer skyrmions. *Rare Metals*, 41, 7, 2249-2258, 2022.

<https://doi.org/10.1007/s12598-022-01981-8>

Chu Ye, Lin-Lin Li, Yun Shu, Qian-Rui Li, Jing Xia, Zhi-Peng Hou, Yan Zhou, Xiao-Xi Liu, Yun-You Yang, Guo-Ping Zhao

Generation and manipulation of skyrmions and other topological spin structures with rare metals. *Rare Metals*, 41, 7, 2200-2216, 2022.

<https://doi.org/10.1007/s12598-021-01908-9>

Jing Xia, Xichao Zhang, Oleg A Tretiakov, Hung T Diep, Jinbo Yang, Guoping Zhao, Motohiko Ezawa, Yan Zhou, Xiaoxi Liu

Bifurcation of a topological skyrmion string. *Physical Review B*, 105, 21, 214402, 2022.

<https://doi.org/10.1103/PhysRevB.105.214402>

Durgesh Kumar, Tianli Jin, Rachid Sbiaa, Mathias Kläui, Subhankar Bedanta, Shunsuke Fukami,

Dafine Ravelosona, See-Hun Yang, Xiaoxi Liu, SN Piramanayagam

Domain wall memory: Physics, materials, and devices. *Physics Reports*, 958, 1-35, 2022.

<https://doi.org/10.1016/j.physrep.2022.02.001>

Xichao Zhang, Jing Xia, Xiaoxi Liu

Structural transition of skyrmion quasiparticles under compression. *Physical Review B*, 105, 18, 184402, 2022.

<https://doi.org/10.1103/PhysRevB.105.184402>

Toshiki Kumagai, Kenichi Hibino, Keita Tomita, Katsumi Wasaki

Inertia alignment of phase-shifting algorithms for high-numerical-aperture spherical testing in Fizeau interferometry. *Applied Optics*, 61, 30, 8926-8935, 2022.

DOI: 10.1364/AO.465761

Hiroyuki Okazaki

Formalization of Orthogonal Decomposition for Hilbert Spaces. *Formalized Mathematics*, 30, 4, 295-299, 2023.

<https://doi.org/10.2478/forma-2022-0023>

Ayumu Yamamoto, Yuta Kaga, Tomohiro Aso, Shin-ichiro Kuroki, Hideya Momose, Koh Johguchi

Flexible and compact perspiration-monitoring system with 0.18 μ m BCD process and PDMS micro air-flow

- path. Japanese Journal of Applied Physics (JJAP), 60, SBBL05, 2021.
DOI : 10.35848/1347-4065/acb659
- Gou Koutaki, Sakino Ando, Keiichiro Shirai, Tsuyoshi Kishigami
ISHIGAKI retrieval system using 3D shape matching and combinatorial optimization. International Journal on Computer Vision (IJCV), 130, 2286-2304, 2022.
<https://doi.org/10.1007/s11263-022-01630-8>
- Keiichiro Shirai, Kenjiro Sugimoto, Sei-ichiro Kamata
Adjoint bilateral filter and its application to optimization-based image processing. APSIPA Transactions on Signal and Information Processing, 11, 1, 1-27, 2022.
<http://dx.doi.org/10.1561/116.00000046>
- Osamu Takyu, Akinori Kamio
Countermeasure to Hidden Terminal Problem Considering Data Rate Shift Algorithm in Wireless LAN. IEICE Communication Express, 11, 6, 302-306, 2022.
- Osamu Takyu, Gaku Kobayashi, Koichi Adachi, Mai Ohta, Takeo Fujii
Estimation Based on Chirp Modulation for Desired and Interference Power and Channel Occupancy Ratio in LoRa. Sensors, 22, 11, 1-17, 2022.
<https://doi.org/10.3390/s22114140>
- Masafumi Oda, Osamu Takyu, Mai Ohta, Takeo Fujii, Koichi Adachi
Position Estimation of Radio Source based on Fingerprinting with Physical Wireless Parameter Conversion Sensor Networks. IEEE Access, 11, 12843-12857, 2023.
DOI:10.1109/ACCESS.2023.3242611
- Toshi Ito, Masafumi Oda, Osamu Takyu, Mai Ohta, Takeo Fujii, Koichi Adachi
Three Level Recognition Based on the Average of the Phase Differences in Physical Wireless Parameter Conversion Sensor Networks and Its Effect to Localization with RSSI. Sensors, 23, 6, 1-22, 2023.
<https://doi.org/10.3390/s23063308>
- 征矢隼人, 西尾勇樹, 田久 修
ランデブチャネルにおける選択確率に基づくチャネル選択法. 電子情報通信学会和文論文誌B, J106-B, 3, 198-207, 2023.
DOI:10.14923/transcomj.2022GWP0013
- 小澤悠平, 森川尚輝, 田代晋久, 脇若弘之, 水野 勉, 大宮直木
カプセル内視鏡磁気誘導磁石用磁気シールドケースの検討. 電気学会論文誌A, 142, 9, 383-389, 2022.
- Mikihiko Nishiara
Channel coding with cost paid on delivery. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, E105A, 3, 345-352, 2022.
DOI:10.1587/transfun.2021TAP0002
- Tao Xiao, Dong Wang, Shane McIntosh, Hideaki Hata, Raula Gaikovina Kula, Takashi Ishio, Kenichi Matsumoto
Characterizing and mitigating self-admitted technical debt in build systems. IEEE Transactions on Software Engineering, 48, 10, 4214-4228, 2022.
- Abdulaziz Alhefdhi, Hoa Khanh Dam, Yusuf Sulisty Nugroho, Hideaki Hata, Takashi Ishio, Aditya Ghose
A Framework for conditional statement technical debt identification and description. Automated Software Engineering, 29, 2, 60, 2022.
<https://doi.org/10.1007/s10515-022-00364-8>
- Raula Gaikovina Kula, Christoph Treude, Hideaki Hata, Sebastian Baltes, Igor Steinmacher, Marco Aurelio Gerosa, Winifred Kula Amini

Challenges for inclusion in software engineering: the case of the emerging Papua New Guinean society. *IEEE Software*, 39, 3, 67–76, 2022.

Supatsara Wattanakriengkrai, Patanamon Thongtanunam, Chakkrit Tantithamthavorn, Hideaki Hata, Kenichi Matsumoto

Predicting defective lines using a model-agnostic technique. *IEEE Transactions on Software Engineering*, 48, 5, 1480–1496, 2022.

Hiroaki Yamamoto, Ryosuke Oda, Yoshihiro Wachi, Hiroshi Fujiwara

Substring searchable symmetric encryption based on an improved DAWG. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, E105–A, 12, 1578–1590, 2022.

DOI:10.1587/transfun.2021EAP1122

Hiroshi Fujiwara, Kanaho Hanji, Hiroaki Yamamoto

Online removable knapsack problem for integer-sized unweighted items. *IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences*, E105–A, 9, 2022.

Kousuke Miyaji

Design and Integration of Beyond-10MHz High Switching Frequency DC-DC Converter. *IEICE Transactions on Electronics*, E105–C, 521–533, 2023.

<https://doi.org/10.1587/transele.2021CTI0001>

Kazuya Nishijima, Toma Umeki, Kousuke Miyaji

A 24V-to-1V integrated dual-charging path dual-inductor hybrid converter for improved step-up load transient response. *Jpn. J. Appl. Phys.*, 62, SC1047, 1–10, 2023.

DOI:10.35848/1347-4065/acb364

Shu Kagami, Noriyuki Urakami, Yuichiro Suzuki, Yoshio Hashimoto

Solid-source vapor growth and optoelectronic properties of arsenic-based layered group-IV monpnictide. *CrystEngComm*, 24, 4085–4092, 2022.

<https://doi.org/10.1039/D2CE00302C>

Hayate Takeuchi, Noriyuki Urakami, Yoshio Hashimoto

Oxidation of tantalum disulfide (TaS₂) films for gate dielectric and process design of two-dimensional field-effect device. *Nanotechnology*, 33, 375204, 2022.

DOI:10.1088/1361-6528/ac75f9

Noriyuki Urakami, Kensuke Takashima, Masahiro Shimizu, Yoshio Hashimoto

Thermal chemical vapor deposition of layered carbon nitride films under a hydrogen gas atmosphere. *CrystEngComm*, 25, 877–883, 2023.

<https://doi.org/10.1039/D2CE01515C>

R. U. Abbasi, T. Tomida, et al., (全150名147番目),

Observation of variations in cosmic ray single count rates during thunderstorms and implications for large-scale electric field changes. *Physical Review D*, 105, 6, 062002, 2022.

<https://doi.org/10.1103/PhysRevD.105.062002>

Pawan Kumar, Sumit Chaudhary, Md Arif Khan, Ruchi Singh, Myo Than Htay, Rahul Prajesh, Ajay Agarwal, Shaibal Mukherjee

Impact of ZnO Cap layer on the performance of MgZnO/CdZnO heterostructure with Y₂O₃ spacer layer. *IEEE Transactions on Electron Devices*, 69, 11, 5991–5995, 2022.

Chandrabhan Patel, ruchi singh, Mayank Dubey, Sushil Pandey, Shrish Upadhyay, Vikash Kumar,

Sharath Sriram, Myo Than Htay, Srimanta Pakhira, Victor Atuchin, Shaibal Mukherjee

Large and uniform single crystals of MoS₂ monolayers for ppb-level NO₂ sensing. *ACS Applied Nano Materi-*

als, 5, 7, 9415–9426, 2022.

<https://doi.org/10.1021/acsanm.2c01701>

Sanjay Kumar, Mangal Das, Myo Than Htay, Sharath Sriram, Shaibal Mukherjee

Electroforming-Free Y_2O_3 memristive crossbar array with low variability. *ACS Applied Electronic Materials*, 4, 6, 3080–3087, 2022.

<https://doi.org/10.1021/acsaelm.2c00472>

Mayank Dubey, Gaurav Siddharth, Ruchi Singh, Chandrabhan Patel, Sanjay Kumar, Myo Than Htay,

Victor V. Atuchin, Shaibal Mukherjee

Influence of substrate temperature and sulfurization on sputtered $\text{Cu}_2\text{SnGe}(\text{S}, \text{Se})_3$ thin films for solar cell application. *IEEE Transactions on Electron Devices*, 69, 5, 2488–2493, 2022.

水環境・土木工学科

河村 隆, 梅崎健夫, 井上 駿

不織布の初期状態の不均一性を考慮した段階載荷圧縮特性の統計的評価. *ジオシンセティックス論文集*, 37, 106–113, 2022.

神里良太, 浅田康廣, 小松一弘, 高篠鮎人, 浦上 正, 茂田裕充, 秋葉道宏

粉末活性炭の短時間接触による2-メチルイソボルネオール除去に対する競合吸着有機物の特性評価. *水道協会雑誌*, 91, 12, 4–13, 2022.

Maegala Nallapan Maniyam, Hasdianty Abdullah, Mohd Fadzli Ahmad, Emi Fazlina Hashim, Fridelina Sjahrir,

Kazuhiro Komatsu, Victor S. Kuwahara, Nor Suhaila Yaacob

Malaysian Virgin Soil Extracts as Natural Growth Enhancer for Targeted Green Microalgae Species. *Applied Sciences*, 12, 8, 4060, 2022.

<https://doi.org/10.3390/app12084060>

P Bairi, A Furuse, K Fujisawa, T Hayashi, K Kaneko

Effect of pretreatment conditions on the precise nanoporosity of grapheneOxide. *Langmuir*, 38, 50, 15880–15886, 2022.

<https://doi.org/10.1021/acs.langmuir.2c02938>

A. Furuse, D. Stevic, K. Fujisawa, T. Hayashi, K. Kaneko

Oxidation-aided cap-removal of chemical vapor deposition-prepared single-wall carbon nanotubes. *Adsorption*, 29, 1–7, 2022.

<https://doi.org/10.1007/s10450-023-00376-0>

Y. Nagata, R. Kukobat, A. Furuse, H. Otsuka, T. Hayashi, K. Kaneko

Designed production of atomic-scale nanowindows in single wall carbon nanotubes. *Langmuir*, 39, 5911–5916, 2023.

<https://doi.org/10.1021/acs.langmuir.3c00422>

Armando D Martínez-Iniesta, Emilio Muñoz-Sandoval, Juan P Morán-Lázaro, Takuya Hayashi, Morinobu Endo,

Aarón Morelos-Gómez, Florentino López-Urías

Phosphorus and nitrogen codoped entangled carbon nanotubes forming spongy materials: Synthesis and characterization. *Diamond and Related Materials*, 129, 109317, 2022.

<https://doi.org/10.1016/j.diamond.2022.109317>

Yuito Kamijyou, Radovan Kukobat, Ayumi Furuse, Hayato Otsuka, Kazunori Fujisawa, Takuya Hayashi,

Toshio Sakai, Katsumi Kaneko

Pore structure changes in free-standing single-wall carbon nanotube film on vacuum high-temperature an-

nealing. *Carbon Trends*, 9, 100230, 2022.

<https://doi.org/10.1016/j.cartre.2022.100230>

Guoqing Cheng, Takuya Hayashi, Yuya Miyake, Takashi Sato, Hiroshi Tabata, Mitsuhiro Katayama, Naoki Komatsu

Interlocking of single-walled carbon nanotubes with metal-tethered tetragonal nanobrackets to enrich a few hundredths of a nanometer range in their diameters. *ACS Nano*, 16, 8, 12500-12510, 2022.

<https://doi.org/10.1021/acsnano.2c03949>

Radovan Kukobat, Motomu Sakai, Hideki Tanaka, Hayato Otsuka, Fernando Vallejos-Burgos,

Christian Lastoskie, Masahiko Matsukata, Yukichi Sasaki, Kaname Yoshida, Takuya Hayashi, Katsumi Kaneko

Ultrapermeable 2D-channeled graphene-wrapped zeolite molecular sieving membranes for hydrogen separation. *Science Advances*, 8, 20, eab13521, 2022.

DOI:10.1126/sciadv.abl3521

Radovan Kukobat, Motomu Sakai, Ayumi Furuse, Hayato Otsuka, Hideki Tanaka, Takuya Hayashi,

Masahiko Matsukata, Katsumi Kaneko

Apatite-graphene interface channel-aided rapid and selective H₂ permeation. *The Journal of Physical Chemistry C*, 126, 7, 3653-3660, 2022.

<https://doi.org/10.1021/acs.jpcc.1c08928>

Juan L. Fajardo-Diaz, Aarón Morelos-Gomez, Rodolfo Cruz-Silva, Kazuki Ishii, Tomoharu Yasuie,

Takahiro Kawakatsu, Ayaka Yamanaka, Shogo Tejima, Kazuo Izu, Shigeru Saito, Jun Maeda, Kenji Takeuchi,

Morinobu Endo

Low-pressure reverse osmosis membrane made of cellulose nanofiber and carbon nanotube polyamide nanocomposite for high purity water production. *Chemical Engineering Journal*, 448, 137359, 2022.

<https://doi.org/10.1016/j.cej.2022.137359>

Kenji Takeuchi, Rodolfo Cruz-Silva, Masatsugu Fujishige, Naomi Yanagisawa, Hidenori Kitazawa, Jun Maeda,

Morinobu Endo

Preparation of polysulfone support for higher-performance reverse osmosis membranes. *Journal of Environmental Chemical Engineering*, 10, 3, 107860, 2022.

<https://doi.org/10.1016/j.jece.2022.107860>

豊田政史, 吉谷純一, 江塚悠吾, 倉田侑征, 土屋十園

令和元年東日本台風時の千曲川上流部における避難行動に関する分析～佐久市・佐久穂町を対象に～. *土木学会論文集F6 (安全問題)*, 78-2, I_11-I_20, 2022.

武田 誠, 佐藤大介, 曾根原真秀, 豊田政史, 川池健司

破堤条件および建物の影響を考慮した千曲川における氾濫解析の精度評価. *土木学会論文集B1 (水工学)*, 78-2, I_799-I_804, 2022.

松本明人, 竹森晴香, 武内紀浩

紫外外部吸光度の累積値を用いた海水淡水化用逆浸透膜モジュールのファウリング指標の提案. *用水と廃水*, 64, 10, 54-59, 2022.

Yuki Chikahiro, Ichiro Ario

Numerical analysis of reinforcing effect for scissors-type bridge with strut members. *Applied Sciences*, 12, 24, 2022.

<https://doi.org/10.3390/app122412906>

Ichiro Ario, Yuta Hama, Khongkham Chanthamanivong, Yuki Chikahiro, Akimasa Fujiwara, Haicheng Ma

Influence line-based design of scissors-type bridge. *Applied Sciences*, 12, 23, 2022.

<https://doi.org/10.3390/app122312170>

Seiya Zenzai, Yuki Chikahiro, Shigeru Shimizu

Estimation equation for horizontal load bearing capacity of circular PCFST with diaphragm. *Applied Sciences*, 12, 17, 8739, 2022.

<https://doi.org/10.3390/app12178739>

近広雄希, 小池 悠, 豊田政史, 奥山雄介, 大原涼平, 清水 茂

令和元年台風19号により生じた千曲川流域の橋梁被害とその要因分析. *土木学会論文集F6 (安全問題)*, 78, 2, 131-139, 2023.

中沢正利, 小野秀一, 近広雄希, 木下幸治

応急組立橋の使用状況調査及び緊急仮設橋の基準整備に向けた提言. *構造工学論文集*, 69, A, 1208-1218, 2023.

森本真一, 近広雄希, 有尾一郎

水管橋被害に対する緊急仮設橋の活用に向けた一検討. *構造工学論文集*, 69, A, 1219-1226, 2023.

平池 勉, 有尾一郎, 近広雄希, 森本真一, 佐々木貴信

豪雨災害から学ぶ緊急仮設橋の要求性能と緊急運用についての提案. *構造工学論文集*, 69, A, 1227-1236, 2023.

近広雄希, 有尾一郎

戦後の応急組立橋に見る要求性能の変遷と課題. *構造工学論文集*, 69, A, 1237-1243, 2023.

近広雄希, 小野秀一

令和元年台風19号による千曲川流域の橋梁被害と関心度の変化. *構造工学論文集*, 69, A, 1244-1252, 2023.

木下幸治, 近広雄希, 河村進一, 熊田哲規, 武中純一, 藤田博行, 中沢正利

Bailey Bridgeの仮設・恒久的利用の国内外事例調査に基づく恒久利用に向けた枠組み. *構造工学論文集*, 69, A, 1269-1279, 2023.

野本温秀, 森本瑛士, 高瀬達夫

拠点として維持が可能な最低人口の検討 - 中核市における誘導区域内の施設立地状況から - . *土木学会論文集 D3 (土木計画学)*, 78, 5, I_337-I_346, 2023.

難波晃大, 森本瑛士, 高瀬達夫, 豊田政史

信濃川水系の流域都市を対象とした誘導区域指定と豪雨災害の関係性. *土木学会論文集D3 (土木計画学)*, 78, 5, I_21-I_29, 2023.

機械システム工学科

傳田直史, 飯島清貴, 津幡知己, 佐宗依吹, 榊 和彦

低圧コールドスプレーによるセラミックス基板上のアルミニウム皮膜の密着力に及ぼす基板予備酸化の影響. *溶射*, 59, 4, 199-204, 2022.

Hideyuki Sugioka, Atsushi Miyauchi

Generation of a net flow due to fixed oblique beam structures in the nucleate boiling region. *Physics of Fluids*, 35, 024102, 2023.

<https://doi.org/10.1063/5.0135549>

Hideyuki Sugioka, Ryo Takeda

Experimental demonstration of vector separator using induced charge electro-osmosis. *J. Phys. Soc. Jpn*, 92, 024401, 2023.

<https://doi.org/10.7566/JPSJ.92.024401>

Hideyuki Sugioka, Yusuke Someya

Rapid increase in strength of vortices and a directional net flow due to Marangoni force in Büttiker-Landauer

ratchet. *Physics of Fluids*, 34, 064113, 2022.

<https://doi.org/10.1063/5.0093113>

H Sugioka, H Nakamura

The weaving of the carbon fiber using induced-charge electro-osmosis with DC-AC alternating switching. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 655, 130190, 2022.

<https://doi.org/10.1016/j.colsurfa.2022.130190>

Hideyuki Sugioka, Kota Yamamoto, Hiroki Yoshijima

Carbon heater using self-organization process for thermally-actuated water pump. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 649, 129497, 2022.

<https://doi.org/10.1016/j.colsurfa.2022.129497>

Hideyuki Sugioka, Shunsuke Takahashi, Yusuke Someya

Natural convection pump having local nonequilibrium states with heaters for microfluidic circuits. *Japanese Journal of Applied Physics*, 61, 064001, 2022.

DOI:10.35848/1347-4065/ac6784

仲田 凌, 種村昌也, 千田有一

回転座標変換を用いた車両の円経路追従制御における逆振れ応答の発生条件. 計測自動制御学会論文集, 58, 11, 512-518, 2022.

仲田 凌, 種村昌也, 千田有一

回転座標変換と伸縮座標変換を併用した車両の円経路追従制御における逆振れ応答発生条件. 日本機械学会論文集, 88, 913, 1-12, 2022.

Hiroki Yamada, Yuichi Chida, Masaya Tanemura

Improvement of linear tracking response of two-degree-of-freedom control of discrete-valued driven crawler. *IFAC Papers OnLine* 56-1, 313-318, 2023.

Naoki Kosaka, Mei Du, Yutaka Okamiya, Kanemi Hirata, Masayoshi Tamura, Yuichi Chida, Masaya Tanemura, Kimitoshi Yamazaki, Keiji Kataoka

Control system development for automation of curve sewing operations and experimental verification. *IFAC Papers OnLine* 55-27, 31-36, 2022.

Takuya Fukumoto, Yuichi Chida, Masaya Tanemura

Improved tracking performance by H^∞ control for an automatic spinach harvester. *IFAC Papers OnLine* 55-25, 265-270, 2022.

田中壮汰, 中村正行

温度場と磁場の連成に基づく熱磁気モータの回転動作解析. 日本AEM学会誌, 30, 2, 86-93, 2022.

Yoshinori Shihara, Ryosuke Kanazawa, Daisuke Matsunaka, Ivan Lobzenko, Tomohito Tsuru,

Masanori Kohyama, Hideki Mori

Artificial neural network molecular mechanics of iron grain boundaries. *Scripta Mater.*, 207, 114269-1-4, 2022.

<https://doi.org/10.1016/j.scriptamat.2021.114268>

Kimitoshi Yamazaki, Kazuki Nogami, Kotaro Nagahama

Viewpoint planning for object identification using visual experience according to long-term activity. *International Journal of Automation Technology*, 16, 2, 197-207, 2022.

<https://doi.org/10.20965/ijat.2022.p0197>

Changjian Ying, Yaqiang Mo, Yuichiro Matsuura, Kimitoshi Yamazaki

Pose estimation of a small connector attached to the tip of a cable sticking out of a circuit board. *International Journal of Automation Technology*, 16, 2, 208-217, 2022.

<https://doi.org/10.20965/ijat.2022.p0208>

Yu Yamauchi, Yuichi Ambe, Hikaru Nagano, Masashi Konyo, Yoshiaki Bando, Eisuke Ito, Solvi Arnold, Kimitoshi Yamazaki, Katsutoshi Itoyama, Takayuki Okatani, Hiroshi G. Okuno, Satoshi Tadokoro

Development of a continuum robot enhanced with distributed sensors for search and rescue. *Robomech J.* 9, 8, 2022.

<https://doi.org/10.1186/s40648-022-00223-x>

山崎隆広, アーノルド・ソービ, 山崎公俊

オプティカルフローの学習に基づく袖通し作業中の布のオンライン状態推定. *日本ロボット学会誌*, 1, 40, 9, 817-826, 2022.

Kimitoshi Yamazaki, Satoshi Suzuki, Yusuke Kuribayashi

Approaching motion planning for mobile manipulators considering the uncertainty of self-positioning and object's pose estimation. *Robotics and Autonomous Systems*, 158, 104232, 2022.

<https://doi.org/10.1016/j.robot.2022.104232>

Solvi Arnold, Daisuke Tanaka, Kimitoshi Yamazaki

Cloth manipulation planning on basis of mesh representations with incomplete domain knowledge and voxel-to-Mesh Estimation. *Frontiers in Neurorobotics*, 16, 2023.

<https://doi.org/10.3389/fnbot.2022.1045747>

Yaqiang Mo, Hikaru Sasaki, Takamitsu Matsubara, Kimitoshi Yamazaki

Multi-step motion learning by combining learning-from-demonstration and policy-search. *Advanced Robotics*, 37, 9, 560-575, 2023.

<https://doi.org/10.1080/01691864.2022.2163187>

Solvi Arnold, Mami Kuroishi, Rin Karashima, Tadashi Adachi, Kimitoshi Yamazaki

Recognising affordances in predicted futures to plan with consideration of non-canonical affordance effects. *IEEE Robotics and Automation Letters*, 2023.

Masato Yoshino, Kohei Sasaki, Satoshi Saito, Kosuke Suzuki

Lattice Boltzmann simulation of behaviors of binary cloud droplets approaching each other. *Multiphase Science and Technology*, 34, 3, 1-15, 2022.

Satoshi Saito, Masato Yoshino, Kosuke Suzuki

Numerical simulation of bubbly flows by the improved lattice Boltzmann method for incompressible two-phase flows. *Computers & Fluids*, 254, 105797, 2023.

<https://doi.org/10.1016/j.compfluid.2023.105797>

佐藤溪太, 阿部駿佑, 浅岡龍徳

沈殿を伴う流れにおける相変化スラリーの流動および熱伝達モデル. *日本冷凍空調学会論文集*, 39, 2, 105-116, 2022.

小熊寿弥, 阿部駿佑, 浅岡龍徳

均質および不均質流れを伴うスラリーの流体モデル. *日本冷凍空調学会論文集*, 39, 3, 177-189, 2022.

R Morii, S Iio

Performance characteristics of propeller turbine using an outer ring runner. *Journal of Physics: Conference Series*, 2217, 012060, 2022.

K Otsuka, N Ogawa, S Iio, T Kitahara, Y D Choi, M Inagaki

Characteristics and suppression of vibration in cross-flow turbine with a cavity. *Journal of Physics: Conference Series*, 2217, 012063, 2022.

西川雄基, 大平康貴, 鴨田 翔, 飯尾昭一郎, 北洞貴也

拡大流路への自然吸気による圧力低下及び動力損失抑制方法に関する研究. *ターボ機械*, 50, 12, 742-753,

2022.

Teruo Kato, Satoru Sakai, Ryo Arai

On the Uncertainty Analysis via Low Frequency Inputs for Hydraulic Cylinder Dynamics. *JFPS International Journal of Fluid Power System*, 15, 3, 95-100, 2022.

井口大地, 鈴木康祐, 吉野正人

蝶を模した羽ばたき翼 - 胴体モデルの飛翔における翼基部の柔軟性を考慮した数値シミュレーション. *計算数理工学論文集*, 22, 37-48, 2022.

木村晃樹, 鈴木康祐, 吉野正人

壁面から飛び立つ蝶の方向転換時における飛翔解析: 計測実験とCFDシミュレーション. *計算数理工学論文集*, 22, 49-60, 2022.

遠藤 円, 鈴木康祐, 吉野正人

融解・凝固を考慮した応力テンソルの不連続に基づく埋め込み境界 - 格子ボルツマン法の開発と妥当性検証. *計算数理工学論文集*, 22, 61-72, 2022.

Madoka Endo, Kosuke Suzuki, Masato Yoshino

Sensitivity to the application range of buoyancy force in the diffuse-interface immersed boundary method. *Journal of Fluid Science and Technology*, 17, JFST0015, 2022.

Li-Bin Niu, Hayato Kubota

Effect of formic acid on pitting corrosion of steam turbine blade material 13Cr steel in simulated boiler water containing chloride ions. *Materials Transactions*, 63, 7, 1065-1071, 2022.

Yoshifumi Konari, Kenji Kono, Miyuki Sasaki, Koki Ikeda, Li-Bin Niu

Effect of proportions of Γ and iron-zinc solid solution phases on the corrosion prevention performance of mixed coating layers on heated galvanized steel sheets. *Materials Transactions*, 64, 1, 252-259, 2023.

Garuda Fujii

Biphasic undetectable concentrators manipulating both heat flux and direct current via topology optimization. *Physical Review E*, 106, 6, 065304, 2022.

<https://doi.org/10.1103/PhysRevE.106.065304>

Kazuma Hirasawa, Iona Nakami, Takumi Ooinoue, Tatsunori Asaoka, Garuda Fujii

Experimental demonstration of thermal cloaking metastructures designed by topology optimization. *International Journal of Heat and Mass Transfer*, 194, 123093, 2022.

<https://doi.org/10.1016/j.ijheatmasstransfer.2022.123093>

May Hlaing Win Khin, Kentaro Kato, Hyung Jin Sung, Shinnosuke Obi

Fluid flow induced by an elastic plate in heaving motion. *ASEAN Engineering Journal*, 12, 3, 1-9 2022.

<https://doi.org/10.11113/aej.v12.16791>

Sattaya Yimprasert, Kentaro Kato, P. Henrik Alfredsson, Masaharu Matsubara

Effects of polymer addition on transition and length scales of flow structures in transitional channel flow. *Journal of Fluid Science and Technology*, 18, 1, JFST0021, 2023.

<https://doi.org/10.1299/jfst.2023jfst0021>

Kentaro Kato, Rebecca J. Lingwood, P. Henrik Alfredsson

Rotating disks and cones a centennial of von Kármán's 1921 paper. *Journal of Fluid Science and Technology*, 18, 1, JFST0003, 2023.

<https://doi.org/10.1299/jfst.2023jfst0003>

飯島奏望, 種村昌也, 千田有一, 東 俊一

MIMO系に対するデータ駆動型受動性推定のデータ量削減と収束性. *計測自動制御学会論文集*, 58, 8, 399-401, 2022.

<https://doi.org/10.9746/sicetr.58.399>

M. Tanemura, Y. Chida, S. Terada, T. Iida

Improvement of steady-state performance for discrete-valued input control with an integrator utilizing feedback control of integrated value of input. *Asian Journal of Control*, 25, 2, 783-793, 2023.

<https://doi.org/10.1002/asjc.2927>

中山龍雅, 種村昌也, 千田有一, 東 俊一, 畑中健志

人間とビークル群の協調制御系における制御性能を考慮したデータ駆動型グラフ構造探索. 計測自動制御学会論文集, 59, 3, 103-109, 2023.

<https://doi.org/10.9746/sicetr.59.103>

五十嶋洸人, 種村昌也, 千田有一

データ駆動による安定余裕の下界推定情報に基づく安定化制御器設計. 計測自動制御学会論文集, 59, 3, 121-127, 2023.

<https://doi.org/10.9746/sicetr.59.121>

建築学科

糸岡未来, 寺内美紀子

長野県における木造小学校分校校舎の構成に関する研究. 日本建築学会計画系論文集, 87, 800, 1891-1899, 2022.

奥村拓実, 寺内美紀子

分棟接地型集合住宅の外部空間におけるアプローチの選択性と領域性. 日本建築学会計画系論文集, 87, 799, 1634-1642, 2022.

羽藤広輔, 千葉大介

1954年から1960年までの菊竹清訓の著作にみる伝統論. 日本インテリア学会論文報告集, 33, 103-108, 2023.

Yohei Endo, Takanori Goda

Pull-out test and numerical simulation of beam-to-wall connection: Masonry in earthen mortar and hardwood timber. *Engineering Structures*, 275, A, 115206, 2023.

<https://doi.org/10.1016/j.engstruct.2022.115206>

Yohei Endo, Toshikazu Hanazato

Seismic behaviour of a 20th century heritage structure built of welded tuff masonry and timber frames. *International Journal of Architectural Heritage*, 2022.

<https://doi.org/10.1080/15583058.2022.2113572>

Ida Hideyuki, Sato Takuma, Rikukawa Yuta, Abe Reina, Hoyano Shigeo, Tsuchimoto Toshikazu

Optimizing species selection for the structural timbers of traditional farmhouses in a snowy rural area of northeastern Japan. *Ecological Research*, 1-14, 2023. 3.

<https://doi.org/10.1111/1440-1703.12408>

ZHONG YAO, 藤世すばる, 梅干野成央

旧須坂町(長野県須坂市)における明治22年の「建物臺帳」について. 日本建築学会技術報告集, 29, 71, 459-464, 2023.

杉浦虎太郎, 佐倉弘祐

中山間地域における地元住民と移住者の空間認知の差異. 日本建築学会計画系論文集, 88, 804, 475-483, 2023.

Kaito Furuhashi, Takashi Nakaya, Yoshihiro Maeda

Prediction of Occupant Behavior toward Natural Ventilation in Japanese Dwellings: Machine Learning Models and Feature Selection. *Energies*, 15, 16, 5993, 2022.

<https://doi.org/10.3390/en15165993>

鈴木麻純, 松元良枝, 木村悟隆, 長谷川兼一, 中谷岳史

令和2年7月豪雨により浸水した住宅の復旧作業に関する調査報告－熊本県球磨郡相良村を対象として－. 日本建築学会技術報告集, 28, 69, 1066-1071, 2022.

松田昌洋, 佐野竣祐, 五十田 博, 岡部 実

面内応力を受けるCLTの接着面をCZMとした有限要素法モデルの検討. 日本建築学会構造系論文集, 88, 803, 81-90, 2023.

工学基礎部門

Tomohiro Ikkai, Hiromichi Ohno, Yusuke Sawada

Adjacency and transition matrices related to random walks on graphs. *J. Algebraic Combin.*, 56, 1, 249-267, 2022.

<https://doi.org/10.1007/s10801-021-01107-w>

Dariusz Chruściński, Gen Kimura, Hiromichi Ohno, Tanmay Singal

Bounding the Frobenius norm of a q -deformed commutator. *Linear Algebra Appl.*, 646, 95-106, 2022.

<https://doi.org/10.1016/j.laa.2022.03.021>

Dariusz Chruściński, Gen Kimura, Hiromichi Ohno, Tanmay Singal

One-parameter generalization of the Böttcher–Wenzel inequality and its application to open quantum dynamics. *Linear Algebra Appl.*, 656, 158-166, 2023.

<https://doi.org/10.1016/j.laa.2022.09.022>

Xinyue GUO, Hirohiko TANAKA, Shin KAJITA, Noriyasu OHNO, Shogo HATTORI, Keiji SAWADA

Isotope Effect for Plasma Detachment in Helium and Hydrogen/Deuterium Mixture Plasmas. *Plasma and Fusion Research*, 17, 2402027, 2022.

<https://doi.org/10.1585/pfr.17.2402027>

Keiji SAWADA

Electron and Proton Energy Loss via Rovibrational Excitation of Molecular Hydrogen in Fusion. Detached Plasmas. *Plasma and Fusion Research*, 17, 2403044, 2022.

<https://doi.org/10.1585/pfr.17.2403044>

Yuki Hayashi, Hirohiko Tanaka, Noriyasu Ohno, Shin Kajita, Thomas Morgan, Hennie van der Meiden,

John Scholten, Jordy Vernimmen, Hiroki Natsume, Keiji Sawada

Reduction of pulsed particle load with dynamic pressure induced by transient recycled neutral flux. *Plasma Physics and Controlled Fusion*, 64, 105013, 2022.

DOI:10.1088/1361-6587/ac8acb

T. D. Kawahara, S. Nozawa, N. Saito, T. T. Tsuda, T. Kawabata, S. Wada

Mesopause temperature and wind observations by a narrowband Na lidar. *Journal of Laser Radar Society of Japan*, 3, 36-45, 2022.

Masaya Maeda, Akito Suzuki, Kazuyuki Wada

Absence of singular continuous spectra and embedded eigenvalues for one-dimensional quantum walks with general long-range coins. *Rev. Math. Phys.*, 34, 5, 2250016, 2022.

<https://doi.org/10.1142/S0129055X22500167>

Hiroko Itakura

Self-praise in Japanese conversation. *Journal of Pragmatics*, 202, 80-92.

<https://doi.org/10.1016/j.pragma.2022.10.011>

Keisuke Kaneko, Fumihito Sasamori, Masao Okuhara, Suchinda Jarupat Maruo, Kazuki Ashida, Hisaaki Tabuchi, Hisaki Akasaki, Kazuki Kobayashi, Yuya Aoyagi, Noriaki Watanabe, Tomoyuki Nishino, Koji Terasawa

Evaluation of a dementia prevention program to improve health and social care and promote human rights among older adults. *International Journal of Human Rights in Healthcare*, 1-12, 2022.

<https://doi.org/10.1108/IJHRH-12-2021-0206>

Terasawa Koji, Gede Adiatmika I Putu, Nyoman Adiputra I, Maruo Suchinda Jarupat, Kalampakorn Surintorn, Watanabe Toshiaki, Sasamori Fumihito, Kobayashi Kazuki, Akasaki Hisaki, Okuhara Masao, Uchiyama Ryoji, Ashida Kazuki, Tabuchi Hisaaki, Kayama Mizue, Futagami Takao, Nagai Takashi

Implementation of a health education program in Asia, comparing Thailand, Indonesia, and Japan. *Technology and Health Care*, 30, 4, 775-785, 2022.

DOI:10.3233/THC-202583

Ikki Fukuda, Masahiro Ikeda

Large time behavior of solutions to the Cauchy problem for the BBM-Burgers equation. *J. Differential Equations*, 336C, 275-314, 2022.

<https://doi.org/10.1016/j.jde.2022.07.020>

先鋭材料研究所

Felipe de Jesús Barraza-García, Felipe Caballero-Briones, Aarón Morelos-Gómez, Nadia Martínez-Villegas, Jeanny Lucero Hernández-Martínez, Morinobu Endo, Florentino López-Urías, Emilio Muñoz-Sandoval

The synthesis of sponge-type nitrogen-doped multiwall carbon nanotubes using ball-milled natural red-leptosol as catalyst precursor: A cycle voltammetry study. *Carbon*, 196, 510-524, 2022.

<https://doi.org/10.1016/j.carbon.2022.05.025>

Kenji Takeuchi, Rodolfo Cruz-Silva, Masatsugu Fujishige, Naomi Yanagisawa, Hidenori Kitazawa, Jun Maeda, Morinobu Endo

Preparation of polysulfone support for higher-performance reverse osmosis membranes. *Journal of Environmental Chemical Engineering*, 10, 3, 107860, 2022.

<https://doi.org/10.1016/j.jece.2022.107860>

Min Parka, Dawon Jang, Morinobu Endo, Sungho Lee, Dong Su Lee

The effect of heat treatment on temperature-dependent transport and magnetoresistance in polyacrylonitrile-based carbon fibers. *Materials & Design*, 222, 111071, 2022.

<https://doi.org/10.1016/j.matdes.2022.111071>

Hiroshi Jinnai, Toru Noguchi, Akemi Kumagai, Morinobu Endo, Akira Isogai

Real-time observation of microcrack growth in thin film microtomed from rubber/nanocellulose composite sheets, during tensile deformation. *Polymer Composites*, 43, 9, 6310-6319, 2022.

<https://doi.org/10.1002/pc.26939>

Neves, W. Q., Ferreira, R. S., Kim, Y. A., Endo, M., Choi, G. B., Muramatsu, H., Aguiar, A. L., Alencar, R. S., Souza, A. G.

Pressure-Induced Structural Transformations on Linear Carbon Chains Encapsulated in Carbon Nanotubes: A Potential Route for Obtaining Longer Chains and Ultra-Hard Composites. *Carbon*, 196, 20-28, 2022.

<https://doi.org/10.1016/j.carbon.2022.03.045>

Juan L. Fajardo-Díaz, Aarón Morelos-Gómez, Rodolfo Cruz-Silva, Kazuki Ishii, Tomoharu Yasuike, Takahiro Kawakatsu, Ayaka Yamanaka, Shogo Tejima, Kazuo Izu, Shigeru Saito, Jun Maeda, Kenji Takeuchi, Morinobu Endo

- Low-Pressure Reverse Osmosis Membrane Made of Cellulose Nanofiber and Carbon Nanotube Polyamide Nano-Nanocomposite for High Purity Water Production. *Chemical Engineering Journal*, 448, 137359, 2022.
<https://doi.org/10.1016/j.cej.2022.137359>
- Martinez-Iniesta, A. D., Munoz-Sandoval, E., Moran-Lazaro, J. P., Hayashi, T., Endo, M., Morelos-Gomez, A., Lopez-Urias, F.
Phosphorus and Nitrogen Codoped Entangled Carbon Nanotubes Forming Spongy Materials: Synthesis and Characterization. *Diamond and Related Materials*, 129, 109317, 2022.
<https://doi.org/10.1016/j.diamond.2022.109317>
- Veronica Libertad Medina-Llamas, Juan Luis Fajardo-Diaz, Aaron Morelos-Gomez, Morinobu Endo, Florentino Lopez-Urias, Emilio Munoz-Sandoval
Crystalline multilayer graphene nanoflakes synthesized by catalytic chemical vapor deposition using reduced nanostructured hematite as catalyst precursor and 1,2-dichlorobenzene and benzylamine mixture as carbon source. *Carbon*, 203, 813-826, 2023.
<https://doi.org/10.1016/j.carbon.2022.12.033>
- Armando D Martínez-Iniesta, Aarón Morelos-Gómez, Morinobu Endo, Juan P Morán-Lázaro, Emilio Muñoz-Sandoval, Florentino López-Urias
Graphitic spheres by pyrolyzing toluene-ferrocene-thiophene in a chemical vapor deposition experiment. *Journal of Materials Science*, 58, 2170-2187, 2023.
<https://doi.org/10.1007/s10853-023-08175-2>
- Y Zhu, Z Huang, X Huang, Y Li, H Li, B Zhou, Jian Liu, Keng Xu, Mingxi Wang, Hironori Ogata, Gan Jet Hong Melvin, Josue Ortiz-Medina, Wei Gong, Zubiao Wen, Mauricio Terrones, Morinobu Endo, Zhipeng Wang
One-step hydrothermal synthesis of manganese oxide nanosheets with graphene quantum dots for high-performance supercapacitors. *Journal of Energy Storage*, 62, 106948, 2023.
<https://doi.org/10.1016/j.est.2023.106948>
- Ken-ichi Niihara, Toru Noguchi, Takahiko Makise, Wataru Kashima, Morinobu Endo, Akira Isogai
Cellulose nanofibril/polypropylene composites prepared under elastic kneading conditions. *Cellulose* 29, 4993-5006, 2022.
<https://doi.org/10.1007/s10570-022-04584-9>
- Gong, W., Fugetsu, B., Mao, W., Vipin, A. K., Sakata, I., Su, L., Zhang, X. J., Endo, M.
Electrochemistry of Rechargeable Aqueous Zinc/Zinc-Sulphate/Manganese-Oxide Batteries and Methods for Preparation of High-Performance Cathodes. *Journal of Materials Chemistry A*, 10, 29, 15415-15426, 2022.
<https://doi.org/10.1039/D2TA03729G>
- R. Kukobat, M. Sakai, A. Furuse, H. Otsuka, H. Tanaka, T. Hayashi, M. Matsukata, K. Kaneko
Apatite-graphene interface channel-aided rapid and selective H₂ permeation. *The Journal of Physical Chemistry C* 126, 7, 3653-3660, 2022.
<https://doi.org/10.1021/acs.jpcc.1c08928>
- R. Kukobat, M. Sakai, H. Tanaka, H. Otsuka, F. Vallejos-Burgos, C. Lastoskie, M. Matsukata, Y. Sakai, K. Yoshida, T. Hayashi, K. Kaneko
Ultraparpermeable 2D-channeled graphene-wrapped zeolite molecular sieving 5 membranes for hydrogen separation. *Science Advances* 8, 20, 2022.
DOI:10.1126/sciadv. abl3521
- E. Korczwnwqak, P. Bryk, S. Korter, P. Kowlczyk, M. Zieba, M. Lepicka, K. J. Kurydiowski, K. H. Markeiewicz, A. Z. Wilczewska, W. Kujawski, S. Bonecel, S. Al-Ghrabli, M. Swidzinski,

- D. J. Smolinski, K. Kaneko, J. Kujawa, A. P. Terzyk
Are nanohedgehogs thirsty? Toward new superhydrophobic and anti-icing carbon nanohorn-polymer hybrid surfaces. *Chemical Engineering Journal*. 446, 2, 137126, 2022.
<https://doi.org/10.1016/j.cej.2022.137126>
- Johannes W. M. Osterrieth, Katsumi Kaneko, et. al., (全118名中68番目)
How reproducible are surface areas calculated from the bet equation? *Advanced Materials*. 34, 27, 2201502, 2022.
<https://doi.org/10.1002/adma.202201502>
- I. R. S. Menezes, T. Sakai, Y. Hattori, K. Kaneko
Effect of preheating temperature on adsorption of N₂ and Ar on graphene oxide. *Chemical Physics Letters*, 807, 140091, 2022.
<https://doi.org/10.1016/j.cplett.2022.140091>
- P. Kowalczyk, A. P. Terzyk, P. Erwardt, M. Hough, A. P. Deditius, P. A. Gauden, A. V. Neimark, K. Kaneko
Machine learning-assisted design of porous carbons for removing paracetamol from aqueous solutions. *Carbon*, 198, 371-381 2022.
<https://doi.org/10.1016/j.carbon.2022.07.029>
- Y. Kamijyou, R. Kukobat, A. Furuse, H. Otsuka, K. Fujisawa, T. Hayashi, T. Sakai, K. Kaneko
Pore structure changes in free-standing single-wall carbon nanotube film on vacuum high temperature annealing. *Carbon Trends*, 9, 100230, 2022.
<https://doi.org/10.1016/j.cartre.2022.100230>
- W. Zięba, K. Jurkiewicz, A. Burian, M. Pawlyta, S. Boncel, G. Szymański, J. Kubacki, P. Kowalczyk, K. Krukiewicz, A. Furuse, K. Kaneko, A. Terzyk
High-surface-area graphene oxide for next-generation energy storage applications. *ACS Applied Nano Materials*, 5, 12, 18488-18461 2022.
<https://doi.org/10.1021/acsanm.2c04281>
- P. Bairi, A. Furuse, K. Fujisawa, T. Hayashi, K. Kaneko
Effect of pretreatment conditions on the precise nanoporosity of graphene oxide. *Langmuir*, 38, 50, 15880-15886. 2022.
<https://doi.org/10.1021/acs.langmuir.2c02938>
- A. Furuse, D. Stevic, K. Fujisawa, T. Hayashi, K. Kaneko
Oxidation-aided cap-removal of chemical vapor deposition-prepared single-wall carbon nanotubes. *Adsorption*, 29, 1-7, 2022.
<https://doi.org/10.1007/s10450-023-00376-0>
- P. Ahuja, S. K. Ujjain, R. Kukobat, K. Urita, I. Moriguchi, A. Furuse, Y. Hattori, K. Fujimoto, K. Kaneko
Air-permeable redox mediated transcutaneous CO₂ sensor. *Chemical Engineering Journal*, 457, 141261-12, 2023.
<https://doi.org/10.1016/j.cej.2022.141260>
- I. R. S. Menezes, T. Sakai, K. Kaneko
Evaluation of graphene oxide nanoporosity by multiprobe gas adsorption analysis. *Journal of Materials Science*. 58, 4439-4449, 2023.
<https://doi.org/10.1007/s10853-023-08262-4>
- E. Korczeniewski, P. Bryk, G. S. Szymanski, P. Kowalczyk, M. Zięba, W. Zięba, M. Łepicka, K. J. Kurzydłowski, S. Boncel, S. Al-Gharabli, M. Swidziński, D. J. Smolinski, K. Kaneko, J. Kujawa,

A. P. Terzyk

Open sensu shaped graphene oxide and modern carbon nanomaterials in translucent hydrophobic and omniphobic surfaces – Insight into wetting mechanisms. *Chemical Engineering Journal* 462, 142237, 2023.

<https://doi.org/10.1016/j.cej.2023.142237>

Teresa J. Bandosz, Katsumi Kaneko

Sharpening senses as a key to advance science: a conversation with Professor Katsumi Kaneko. *Carbon*, 208, 432–435, 2023.

<https://doi.org/10.1016/j.carbon.2023.04.005>

Y. Nagata, R. Kukobat, A. Furuse, H. Otsuka, T. Hayashi, K. Kaneko

Designed production of atomic-scale nanowindows in single wall carbon nanotubes. *Langmuir*, 39, 5911–5916, 2023.

<https://doi.org/10.1021/acs.langmuir.3c00422>

Yunfeng Bao, Can Li, Kazunari Domen, Fuxiang Zhang

Strategies and methods of modulating nitrogen-incorporated oxide photocatalysts for promoted water splitting. *Accounts of Materials Research*, 3, 4, 449–460, 2022.

<https://doi.org/10.1021/accountsmr.1c00271>

Jiadong Xiao, Shinji Nishimae, Junie Jhon M. Vequizo, Mamiko Nakabayashi, Takashi Hisatomi, Huihui Li, Lihua Lin, Naoya Shibata, Akira Yamakata, Yasunobu Inoue, Kazunari Domen

Enhanced overall water splitting by a Zirconium-doped TaON-based photocatalyst. *Angewandte Chemie International Edition*, 61, 17, 2022.

<https://doi.org/10.1002/anie.202116573>

Tatsuya Chugenji, Zhenhua Pan, Vikas Nandal, Kazuhiko Seki, Kazunari Domen, Kenji Katayama

Local charge carrier dynamics of a particulate Ga-doped $\text{La}_5\text{Ti}_2\text{Cu}_{0.9}\text{Ag}_{0.1}\text{O}_7\text{S}_5$ photocatalyst and the impact of Rh cocatalysts. *Physical Chemistry Chemical Physics*, 24, 29, 17485–17495, 2022.

<https://doi.org/10.1039/D2CP02808E>

Huihui Li, Jiadong Xiao, Junie Jhon M. Vequizo, Takashi Hisatomi, Mamiko Nakabayashi, Zhenhua Pan, Naoya Shibata, Akira Yamakata, Tsuyoshi Takata, Kazunari Domen

One-step excitation overall water splitting over a modified Mg-doped BaTaO_2N photocatalyst. *ACS Catalysis*, 12, 16, 10179–10185, 2022.

<https://doi.org/10.1021/acscatal.2c02394>

Zheng Wang, Jeongsuk Seo, Takashi Hisatomi, Mamiko Nakabayashi, Jiadong Xiao, Shanshan Chen, Lihua Lin, Zhenhua Pan, Mary Krause, Nick Yin, Gordon Smith, Naoya Shibata, Tsuyoshi Takata, Kazunari Domen

Efficient visible-light-driven water oxidation by single-crystal Ta_3N_5 nanoparticles. *Nano Research*, 16, 4562–4567, 2022.

<https://doi.org/10.1007/s12274-022-4732-5>

Christian Mark Pelicano, Masaki Saruyama, Ryo Takahata, Ryota Sato, Yasutaka Kitahama, Hiroyuki Matsuzaki, Taro Yamada, Takashi Hisatomi, Kazunari Domen, Toshiharu Teranishi

Bimetallic synergy in ultrafine cocatalyst alloy nanoparticles for efficient photocatalytic water splitting. *Advanced Functional Materials*, 32, 31, 2022.

<https://doi.org/10.1002/adfm.202202987>

Lihua Lin, Valeria Polliotto, Junie Jhon M. Vequizo, Xiaoping Tao, Xizhuang Liang, Yiwen Ma,

Takashi Hisatomi, Tsuyoshi Takata, Kazunari Domen

Surface modification of $\text{Y}_2\text{Ti}_2\text{O}_5\text{S}_2$ with Co_3O_4 Co-catalyst for photocatalytic oxygen evolution. *ChemPhotoChem*, 6, 12, 2022.

<https://doi.org/10.1002/cptc.202200209>

Takuya Suguro, Fuminao Kishimoto, Nobuko Kariya, Tsuyoshi Fukui, Mamiko Nakabayashi, Naoya Shibata, Tsuyoshi Takata, Kazunari Domen, Kazuhiro Takanabe

A hygroscopic nano-membrane coating achieves efficient vapor-fed photocatalytic water splitting. *Nature Communications*, 13, 1, 5698, 2022.

<https://doi.org/10.1038/s41467-022-33439-x>

Tomohiro Higashi, Hiroshi Nishiyama, Vikas Nandal, Yuriy Pihosh, Yudai Kawase, Ryota Shoji, Mamiko Nakabayashi, Yutaka Sasaki, Naoya Shibata, Hiroyuki Matsuzaki, Kazuhiko Seki, Kazuhiro Takanabe, Kazunari Domen

Design of semitransparent tantalum nitride photoanode for efficient and durable solar water splitting. *Energy & Environmental Science*, 15, 11, 4761-4775, 2022.

<https://doi.org/10.1039/D2EE02090D>

Mamiko Nakabayashi, Tsuyoshi Takata, Naoya Shibata, Kazunari Domen

Nanostructural analysis of SrTiO₃: Al photocatalyst dispersed with Pt/Cr₂O₃/CoOOH cocatalysts by electron microscopy. *Chemistry Letters*, 51, 10, 978-981, 2022.

<https://doi.org/10.1246/cl.220329>

Yudai Kawase, Tomohiro Higashi, Keisuke Obata, Yutaka Sasaki, Masao Katayama, Kazunari Domen, Kazuhiro Takanabe

Interfacial design of a Ta₃N₅ thin-film photoanode for highly stable oxygen evolution over a wide pH range. *ACS Sustainable Chemistry & Engineering*, 10, 45, 14705-14714, 2022.

<https://doi.org/10.1021/acssuschemeng.2c03049>

Kazuhiko Seki, Tomohiro Higashi, Yudai Kawase, Kazuhiro Takanabe, Kazunari Domen

Exploring the photocorrosion mechanism of a photocatalyst. *The Journal of Physical Chemistry Letters*, 13, 44, 10356-10363, 2022.

<https://doi.org/10.1021/acs.jpcclett.2c02779>

Hiroaki Yoshida, Zhenhua Pan, Ryota Shoji, Vikas Nandal, Hiroyuki Matsuzaki, Kazuhiko Seki, Takashi Hisatomi, Kazunari Domen

Heterogeneous doping of visible-light-responsive Y₂Ti₂O₅S₂ for enhanced hydrogen evolution. *Journal of Materials Chemistry A*, 10, 46, 24552-24560, 2022.

<https://doi.org/10.1039/D2TA06895H>

Ronghua Li, Zhengdi Zha, Yanning Zhang, Minji Yang, Lihua Lin, Qian Wang, Takashi Hisatomi, Mamiko Nakabayashi, Naoya Shibata, Kazunari Domen, Yanbo Li

Band-tail states mediated visible-light-driven overall water splitting in Y₂Ti₂O₅S₂ photocatalyst. *Journal of Materials Chemistry A*, 10, 45, 24247-24257, 2022.

<https://doi.org/10.1039/D2TA06315H>

Zhenhua Pan, Vikas Nandal, Yuriy Pihosh, Tomohiro Higashi, Tian Liu, Jason A. Röhr, Kazuhiko Seki, Chiheng Chu, Kazunari Domen, Kenji Katayama

Elucidating the role of surface energetics on charge separation during photoelectrochemical water splitting. *ACS Catalysis*, 12, 23, 14727-14734, 2022.

<https://doi.org/10.1021/acscatal.2c04225>

Kaiwei Liu, Boyang Zhang, Jifang Zhang, Wenrui Lin, Jiaming Wang, Yao Xu, Yao Xiang, Takashi Hisatomi, Kazunari Domen, Guijun Ma

Synthesis of narrow-band-gap GaN:ZnO solid solution for photocatalytic overall water splitting. *ACS Catalysis*, 12, 23, 14637-14646, 2022.

<https://doi.org/10.1021/acscatal.2c04361>

Oomman K. Varghese, Kazunari Domen, Wojciech Lipiński, Joost Smits

Materials for renewable fuels production. *Applied Physics Letters*, 121, 21, 210401, 2022.

Xiaojun Wang, Qi Xiao, Zhenhua Pan, Swarnava Nandy, Xiaoping Tao, Xizhuang Liang, Lihua Lin,

Junie Jhon M. Vequizo, Daling Lu, Takashi Hisatomi, Wei Yan, Tsuyoshi Takata, Kazunari Domen

Physical properties and photocatalytic activity of pulverized Ga-doped $\text{La}_5\text{Ti}_2\text{Cu}_{0.9}\text{Ag}_{0.1}\text{O}_7\text{S}_5$ powder. *Materials Letters*, 319, 132290, 2022.

<https://doi.org/10.1016/j.matlet.2022.132290>

Huihui Li, Junie Jhon M. Vequizo, Takashi Hisatomi, Mamiko Nakabayashi, Jiadong Xiao, Xiaoping Tao,

Zhenhua Pan, Wenpeng Li, Shanshan Chen, Zheng Wang, Naoya Shibata, Akira Yamakata, Tsuyoshi Takata,

Kazunari Domen

Zr-doped BaTaO_2N photocatalyst modified with Na-Pt cocatalyst for efficient hydrogen evolution and Z-scheme water splitting. *EES Catalysis*, 1, 1, 26-35, 2023.

<https://doi.org/10.1039/D2EY00031H>

Kaihong Chen, Jiadong Xiao, Junie Jhon M. Vequizo, Takashi Hisatomi, Yiwen Ma, Mamiko Nakabayashi,

Tsuyoshi Takata, Akira Yamakata, Naoya Shibata, Kazunari Domen

Overall water splitting by a SrTaO_2N -based photocatalyst decorated with an Ir-promoted Ru-based cocatalyst. *Journal of the American Chemical Society*, 145, 7, 3839-3843, 2023.

<https://doi.org/10.1021/jacs.2c11025>

Shanshan Chen, Swarnava Nandy, Junie Jhon M. Vequizo, Takashi Hisatomi, Mamiko Nakabayashi,

Zhenhua Pan, Qi Xiao, Zheng Wang, Lihua Lin, Song Sun, Kosaku Kato, Akira Yamakata, Naoya Shibata,

Tsuyoshi Takata, Fuxiang Zhang, Kazunari Domen

Promoted utilization of charge carriers in $\text{La}_5\text{Ti}_2\text{Cu}_{0.9}\text{Ag}_{0.1}\text{O}_7\text{S}_5$ -based photocatalyst sheets for efficient Z-scheme overall water splitting. *ACS Catalysis*, 13, 5, 3285-3294, 2023.

<https://doi.org/10.1021/acscatal.2c06249>

Yiwen Ma, Lihua Lin, Tsuyoshi Takata, Takashi Hisatomi, Kazunari Domen

A perspective on two pathways of photocatalytic water splitting and their practical application systems. *Physical Chemistry Chemical Physics*, 25, 9, 6586-6601, 2023.

<https://doi.org/10.1039/D2CP05427B>

Kanta Kobayashi, Takashi Hisatomi, Huihui Li, Kazunari Domen

Photodeposition of Fe-based cocatalysts capable of effectively promoting the oxygen evolution activity of BaTaO_2N . *Catalysts*, 13, 2, 373, 2023.

<https://doi.org/10.3390/catal13020373>

S. Ehrling, I. Senkowska, A. Efimova, V. Bon, L. Abylgazina, P. Petkov, J. D. Evans, A. G. Attallah,

M. T. Wharmby, M. Roslova, Z. H. Huang, H. Tanaka, A. Wagner, P. Schmidt, S. Kaskel

Temperature Driven Transformation of the Flexible Metal-Organic Framework DUT-8(Ni). *Chem. Eur. J.*, 28, e202201281, 2022.

<https://doi.org/10.1002/chem.202201281>

Tianyi Zhang, Mingzu Liu, Kazunori Fujisawa, Michael Lucking, Kory Beach, Fu Zhang,

Maruda Shanmugasundaram, Andrey Krayev, William Murray, Yu Lei, Zhuohang Yu, David Sanchez,

Zhiwen Liu, Humberto Terrones, Ana Laura Elias, Mauricio Terrones

Spatial Control of Substitutional Dopants in Hexagonal Monolayer WS_2 : The Effect of Edge Termination. *Small*, 19, 6, 2205800, 2023.

<https://doi.org/10.1002/sml.202205800>

He Liu, Walner Costa Silva, Leonardo Santana Gonçalves de Souza, Amanda Garcez Veiga, Leandro Seixas, Kazunori Fujisawa, Ethan Kahn, Tianyi Zhang, Fu Zhang, Zhuohang Yu, Katherine Thompson, Yu Lei, Christiano J. S. de Matos, Maria Luiza M. Rocco, Mauricio Terrones, Daniel Grasseschi

3d transition metal coordination on monolayer MoS₂: a facile doping method to functionalize surfaces, *Nanoscale*, 14, 10801–10815, 2022.

<https://doi.org/10.1039/D2NR01132H>

D. M. Saleh, W. T. Alexander, D. B. Alexander, M. Abdelgaied, A. M. EL-Gazzar, O. H. Mohamed, S. Gunasekaran, T. Hirose, A. N. Ito, S. Suzuki, M. Gi, Y. Taquahashi, A. Hirose, J. Kanno, S. Tsuruoka, H. Tsuda

The Toxic and Carcinogenic Potential of Three Different Sizes of Double-Walled Carbon Nanotubes in the Rat Lung After Intratracheal Instillation. *Toxicology Letters*, 368, S42–S43, 2022.

<https://doi.org/10.1016/j.toxlet.2022.07.135>

Armando D. Martínez-Iniesta, Emilio Muñoz-Sandoval, Juan P. Morán-Lázaro, Aarón Morelos-Gómez, Florentino López-Urías

Nitrogen-Phosphorus Codoped Carbon Nanotube Sponges for Detecting Volatile Organic Compounds: Experimental and DFT Calculations. *Physical Chemistry Chemical Physics*, 25, 2546–2565, 2023.

<https://doi.org/10.1039/D2CP04983J>

Kazuya Okuno, Hiromu Kumagai, Junie Jhon M. Vequizo, Kosaku Kato, Makoto Kobayashi, Akira Yamakata, Masato Kakihana, Hideki Kato

Influences of pulverization and annealing treatment on the photocatalytic activity of BiVO₄ for oxygen evolution. *Sustainable Energy & Fuels*, 6, 7, 1698–1707, 2022.

<https://doi.org/10.1039/D2SE00065B>

Jia Hongxing, Lu Shun, Ra Shin Sun Hae, Sushko Maria L., Tao Xiaoping, Hummel Matthew, Thallapally Praveen K., Liu Jun, Gu Zhengrong

In situ anodic electrodeposition of two-dimensional conductive metal-organic framework@nickel foam for high-performance flexible supercapacitor. *Journal of Power Sources*, 526, 231163, 2022.

<https://doi.org/10.1016/j.jpowsour.2022.231163>

Chenxi Zhang, Chenfan Xie, Yuying Gao, Xiaoping Tao, Chunmei Ding, Fengtao Fan, Hai-Long Jiang

Charge separation by creating band bending in metal-organic frameworks for improved photocatalytic hydrogen evolution. *Angewandte Chemie International Edition*, 61, 28, 2022.

<https://doi.org/10.1002/anie.202204108>

特任教員 等

Alexander Zipper, Sebastian Zipper, Jun Kawabe

Base topologies and convergence in nonadditive measure. *Fuzzy Sets Syst.*, 457, 1–19, 2023.

<https://doi.org/10.1016/j.fss.2022.08.007>

Jun Kawabe, Naoki Yamada

The completeness and separability of function spaces in nonadditive measure theory. *Fuzzy Sets Syst.*, 466, 108409, 2023.

<https://doi.org/10.1016/j.fss.2022.10.001>

Jun Kawabe

Topological and topological linear properties of the Sugeno-Lorentz spaces. *Fuzzy Sets Syst.*, 467, 108507, 2023.

<https://doi.org/10.1016/j.fss.2023.03.010>

Yu Yamauchi, Yuichi Ambe, Hikaru Nagano, Masashi Konyo, Yoshiaki Bando, Eisuke Ito, Solvi Arnold, Kimitoshi Yamazaki, Katsutoshi Itoyama, Takayuki Okatani, Hiroshi G. Okuno, Satoshi Tadokoro

Development of a continuum robot enhanced with distributed sensors for search and rescue. *Robomech J.*, 9, 8, 2022.

<https://doi.org/10.1186/s40648-022-00223-x>

山崎隆広, アーノルド・ソービ, 山崎公俊

オプティカルフローの学習に基づく袖通し作業中の布のオンライン状態推定. *日本ロボット学会誌*, 1, 40, 9, 817-826, 2022.

Solvi Arnold, Daisuke Tanaka, Kimitoshi Yamazaki

Cloth manipulation planning on basis of mesh representations with incomplete domain knowledge and voxel-to-Mesh Estimation. *Frontiers in Neurorobotics*, 16, 2023.

<https://doi.org/10.3389/fnbot.2022.1045747>

Solvi Arnold, Mami Kuroishi, Rin Karashima, Tadashi Adachi, Kimitoshi Yamazaki

Recognising affordances in predicted futures to plan with consideration of non-canonical affordance effects. *IEEE Robotics and Automation Letters*, 2023.

統合技術院 (工学部)

Susumu Arai, Soichiro Nakajima, Masahiro Shimizu, Masaomi Horita, Mitsuhiro Aizawa, Oi Kiyoshi

Direct Cu-Cu bonding by low-temperature sintering using three-dimensional nanostructured plated Cu films. *Mater. Today Commun.*, 35, 175090, 2023.

<https://doi.org/10.1016/j.mtcomm.2023.105790>

Masahiro Shimizu, Yusuke Sugiyama, Masaomi Horita, Kazuki Yoshii, Susumu Arai

Cation-Structure Effects on Zinc Electrodeposition and Crystallographic Orientation in Ionic Liquids. *ChemElectroChem.*, 9, e202200016, 2022.

<https://doi.org/10.1002/celec.202200357>

Yasunori Toda, Airi Kooguchi, Kimiya Sukegawa, Ayaka Kikuchi, Hiroyuki Suga

Ring-fused hexahydro-1,2,4,5-tetrazines: synthesis, structure, and mechanistic studies on isolable rotational isomers. *Chem. Commun.*, 59, 700-703, 2023.

<https://doi.org/10.1039/D2CC06170H>

Yasunori Toda, Ryota Shiokawa, Masaya Iwasaki, Daisuke Yamaguchi, Keisuke Kawamura, Kimiya Sukegawa, Hiroyuki Suga

Tetraarylphosphonium salt-catalyzed formal [3+2] cycloaddition between epoxides and trichloroacetonitrile for the synthesis of β -amino alcohol derivatives. *Chem. Commun.*, 58, 11819-11822, 2022.

<https://doi.org/10.1039/D2CC03782C>

Yasunori Toda, Kayo Sato, Kensuke Sato, Kazuma Nagasaki, Hirotaka Nakajima, Ayaka Kikuchi,

Kimiya Sukegawa, Hiroyuki Suga

Asymmetric cycloadditions of acyclic carbonyl ylides with aldehydes catalyzed by a chiral binaphthylidimine-Ni(II) complex: enantioselective synthesis of 1,3-dioxolanes and mechanistic studies by DFT calculations. *Org. Lett.*, 24, 26, 4739-4744, 2022.

<https://doi.org/10.1021/acs.orglett.2c01682>

Yosuke Kageshima, So Kato, Sota Shiga, Fumiaki Takagi, Hikari Minamisawa, Masaomi Horita,

Tomohiko Yamakami, Katsuya Teshima, Kazunari Domen, Hiromasa Nishikiori

Impact of ball milling on the hydrogen evolution performance of $\text{Cu}_2\text{Sn}_{0.38}\text{Ge}_{0.62}\text{S}_3$ photocatalytic particles synthesized via a flux method. *ACS Appl. Mater. Interfaces*, 15, 10, 13108–13120, 2023.

<https://doi.org/10.1021/acsami.2c23103>

Eiichi Satou, Toshihiko Ikeda, Tomomi Uchiyama, Tomoko Okayama, Tomoaki Miyazawa, Kotaro Takamura, Daisuke Tsunashima

Development of an undershot cross-flow hydraulic turbine resistant to snow and ice masses flowing in an installation canal. *Renewable Energy*, 200, 146–153, 2022.

<https://doi.org/10.1016/j.renene.2022.09.062>

2. 国際会議プロシーディング

電子情報システム工学科

Felipe Honjo Ide, Hernan Aguirre, Minami Miyakawa, Darrell Whitley

Exploring the Decision and Objective Space of SAT Constrained Multi-Objective Problems. *The Genetic and Evolutionary Computation Conference (GECCO2022)*, Poster Session, 332–335, 2022.

Raphaël Cosson, Bilel Derbel, Arnaud Liefoghe, Sébastien Verel, Hernan Aguirre, Zhang Qingfu, Kiyoshi Tanaka

Cost-vs-Accuracy of Sampling in Multi-objective Combinatorial Exploratory Landscape Analysis. *The Genetic and Evolutionary Computation Conference (GECCO2022)*, 493–501, 2022.

R. Armas, H. Aguirre, D. Orellana

Evolutionary bi-objective optimization for the electric vehicle charging stand infrastructure problem. *GECCO 2022*, 1139–1146, 2022.

Maiko Onishi, Shinpei Ogata, Kozo Okano, Daisuke Bekki

Reducing syntactic complexity for information extraction from Japanese requirement specifications. *Proceedings of 29th Asia-Pacific Software Engineering Conference (APSEC 2022)*, 387–396, 2022.

Maiko Onishi, Shinpei Ogata, Kozo Okano, Daisuke Bekki

A Method for matching patterns based on event semantics with requirements. *Proceedings of 14th International Joint Conference on Knowledge-Based Software Engineering (JCKBSE 2022)*, 181–192, 2022.

Hitoshi Kiryu, Shinpei Ogata, Kozo Okano

Improve measuring suspiciousness of bugs in spectrum-based fault localization with deep learning. *Proceedings of International Workshop on Informatics 2022 (IWIN2022)*, 3–8, 2022.

Koki Shimokawa, Hiroya Ii, Maiko Onishi, Shinpei Ogata, Kozo Okano

Automatic derivation of a transition model from a Japanese requirement specification under a restricted grammar. *Proceedings of International Workshop on Informatics 2022 (IWIN2022)*, 13–20, 2022.

Kozo Okano, Maiko Onishi, Jo Otsuka, Shinpei Ogata, Toshifusa Sekizawa, Keishi Okamoto, Daisuke Bekki

A Bounded model checker for timed automata and its application to LTL properties. *Proceedings of 26th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems*, 532–541, 2022.

Ryoga Maryama, Mizue Kayama, Takashi Nagai, Koki Otaku, Naomi Taguchi

Proposal of a conceptual modeling learning environment with task/model management functions, *Proc. of 2022 International Conference on Advanced Learning Technologies (ICALT)*, 196–198, 2022. doi:10.1109/ICALT55010.2022.00064.