

構造熱科学研究センター業績リスト(2018)
Publications from
the Research Center for Structural Thermodynamics

[Articles are classified according to original paper (mark O), review article (R), book (B), translation (T) and miscellaneous (M). An asterisk attached to mark-letter indicates that the article has been published in Japanese.]

- O-1 A Bis(μ -oxido)dinickel(III) Complex with a Triplet Ground State
Y. Morimoto, Y. Takagi, T. Saito, T. Ohta, T. Ogura, N. Tohnai, M. Nakano, and S. Itoh
Angew. Chem. Int. Ed. **57**(26), 7640–7643 (2018).
- O-2 Stability of Two-Dimensional Polymorphs for 10,12-Pentacosadyn-1-ol on Graphite Investigated by SPM
D. Takajo, and K. Sudoh
Appl. Sci. **8**(4), 503 (2018) (7 pages).
- O-3 Supramolecular Approach for Enhancing Single-Molecule Magnet Properties of Terbium(III)-phthalocyaninato Double-Decker Complexes with Crown Moieties
Y. Horii, S. Kishiue, M. Damjanovic, K. Katoh, B. K. Breedlove, M. Enders, and M. Yamashita
Chem. Eur. J. **24**(17), 4320–4327 (2018).
- O-4 Changing Single-Molecule Magnet Properties of a Windmill-Like Distorted Terbium(III) α -Butoxy-Substituted Phthalocyaninato Double-Decker Complex by Protonation/Deprotonation
Y. Horii, Y. Horie, K. Katoh, B. K. Breedlove, and M. Yamashita
Inorg. Chem. **57**(2), 565–574 (2018).
- O-5 Unexpected Rise of Glass Transition Temperature of Ice Crystallized from Antifreeze Protein Solution
N. Azuma, Y. Miyazaki, M. Nakano, and S. Tsuda
J. Phys. Chem. Lett. **9**(16), 4512–4515 (2018).
- O-6 Paramagnetism Enhancement by *in situ* Electrochemical Hole Doping into a Prussian Blue Thin Film
M. Noguchi, M. Nakano, S. Kang, O. Sato, and S. Seki
Mater. Chem. Front. **2**(5), 1004–1008 (2018).

- O-7 Control of the Spin Dynamics of Single-Molecule Magnets by Using a Quasi One-Dimensional Arrangement
K. Katoh, S. Yamashita, N. Yasuda, Y. Kitagawa, K. B. Breedlove, Y. Nakazawa, and M. Yamashita
Angew. Chem. Int. Ed. **57**(30), 9262–9267 (2018).
- O-8 Mobility of Hydrated Alkali Metal Ions in Metallosupramolecular Ionic Crystals
N. Yoshinari, S. Yamashita, Y. Fukuda, Y. Nakazawa, and T. Konno
Chem. Sci. (2018) in press.
- O-9 Magnetic and Electronic Properties of π -d Interacting Molecular Magnetic Superconductor κ -(BETS)₂FeX₄ (X = Cl, Br) Studied by Angle-Resolved Heat Capacity Measurements
S. Fukuoka, S. Fukuchi, H. Akutsu, A. Kawamoto, and Y. Nakazawa
Crystals (2018) submitted.
- O-10 Above Room Temperature Spin Crossover in Thioamide-Functionalised 2,6-Bis(pyrazol-1-yl)pyridine Iron(II) Complexes
M. Attwood, H. Akutsu, L. Martin, D. Cruickshank, and S. S. Turner
Dalton Trans. (2018) in press.
- O-11 Structure and Properties of a BEDT-TTF-Based Organic Conductor with a Ferrocene-Based Magnetic Anion Octamethylferrocenedisulfonate
H. Akutsu, R. Hashimoto, J. Yamada, S. Nakatsuji, S. S. Turner, and Y. Nakazawa
Eur. J. Inorg. Chem. **2018**(27), 3249–3252 (2018).
- O-12 A New Ni(dmit)₂-Based Organic Magnetic Charge-Transfer Salt, (*m*-PO-CONH-N-methylpyridinium)[Ni(dmit)₂]-CH₃CN
H. Akutsu, S. Ito, T. Kadoya, J. Yamada, S. Nakatsuji, S. S. Turner, and Y. Nakazawa
Inorg. Chim. Acta **482**, 654-658 (2018).
- O-13 Thermodynamic Investigation by Heat Capacity Measurements of κ -Type Dimer-Mott Organic Compounds with Chemical Pressure Tuning
Y. Matsumura, S. Imajo, S. Yamashita, H. Akutsu, and Y. Nakazawa
Int. J. Mod. Phys. B **32**(17), 1840024 (2018) (7 pages).
- O-14 Development of Light Irradiation Calorimetry System for Molecule-Based Compounds
Y. Matsumura, S. Kataoka, S. Imajo, S. Yamashita, H. Akutsu, and Y. Nakazawa
Int. J. Mod. Phys. B **32**(17), 1840035 (2018) (6 pages).

- O-15 Experimental and Theoretical Aspects of Thermodynamic Properties of Quasi-1D and Quasi-2D Organic Conductors and Superconductors
Y. Nakazawa and S. P. Kruchinin,
Int. J. Mod. Phys. B **32**(17), 1840036 (2018) (38 pages).
- O-16 Superconducting Phase Diagram of the Organic Superconductor κ -(BEDT-TTF)₂Cu[N(CN)₂]Br above 30 T
S. Imajo, Y. Nakazawa, and K. Kindo
J. Phys. Soc. Jpn. **87**(12), 123704 (2018) (5 pages).
- O-17 Gap Symmetry of the Organic Superconductor λ -(BETS)₂GaCl₄ Determined by Magnetic-Field-Angle-Resolved Heat Capacity
S. Imajo, S. Yamashita, H. Akutsu, H. Kumagai, T. Kobayashi, A. Kawamoto, and Y. Nakazawa
J. Phys. Soc. Jpn. (2018) in press.
- O-18 Construction of a Thermal Conductivity Measurement System for Small Single Crystals of Organic Conductors
T. Nomoto, S. Imajo, S. Yamashita, H. Akutsu, Y. Nakazawa, and A. I. Krivchikov
J. Therm. Anal. Calor. (2018) in press.
- O-19 Fulde-Ferrell-Larkin-Ovchinnikov Superconductivity in the Layered Organic Superconductor β'' -(BEDT-TTF)₄[(H₃O)Ga(C₂O₄)₃]C₆H₅NO₂
S. Uji, Y. Iida, S. Sugiura, T. Isono, K. Sugii, N. Kikugawa, T. Terashima, S. Yasuzuka, H. Akutsu, Y. Nakazawa, D. Graf, and P. Day
Phys. Rev. B **97**(14), 144505 (2018) (9 pages).
- O-20 Dielectric Jump and Negative Electrostriction in Metallosupramolecular Ionic Crystals
S. Yamashita, Y. Nakazawa, S. Yamanaka, M. Okumura, T. Kojima, N. Yoshinari, and T. Konno
Sci. Rep. **8**, 2606 (2018) (8 pages).
- O-21 Colloidal Dispersion of a Perfluorosulfonated Ionomer in Water-Methanol Mixtures
S. Li, K. Terao, and T. Sato
Polymers **10**(1), 72 (2018) (12 pages).
- O-22 Theory of the Flower Micelle Formation of Amphiphilic Random and Periodic Copolymers in Solution
T. Sato
Polymers **10**(1), 73 (2018) (13 pages).

- O-23 Aggregation of Cationic Amphiphilic Block and Random Copoly(vinyl ether)s with Antimicrobial Activity
Y. Oda, K. Yasuhara, S. Kanaoka, T. Sato, S. Aoshima, and K. Kuroda
Polymers **10**(1), 93 (2018) (11 pages).
- O-24 Chain Stiffness of Cellulose Tris(phenylcarbamate) in Tricresyl Phosphate (TCP)
X.-Y. Jiang, T. Sato, and K. Terao
Polym. Bull. **75**(3), 1265–1273 (2018).
- O-25 Kinetics of Morphological Transition between Cylindrical and Spherical Micelles in a Mixture of Anionic-Neutral and Cationic-Neutral Block Copolymers Studied by Time-Resolved SAXS and USAXS
R. Takahashi, T. Narayanan, S. Yusa, and T. Sato
Macromolecules **51**(10), 3654–3662 (2018).
- O-26 Ferromagnetic Behavior and Electronic Characterization of ZnO Nanoparticles
T. Ide, K. Fujiwara, T. Hashimoto, K. Kanda, D. Aihara, A. Oshima, and Y. Ichiyanagi
e-J. Surf. Sci. Nanotechnol. **16**, 406–410 (2018).
- O-27 Functionalization and Magnetic Relaxation of Ferrite Nanoparticles for Theranostics
D. Shigeoka, T. Yamazaki, T. Ishikawa, K. Miike, K. Fujiwara, T. Ide, A. Oshima, T. Hashimoto, D. Aihara, K. Kanda, A. Usui, Y. Hosokai, H. Saito, and Y. Ichiyanagi
IEEE Trans. Magn. **54**(11), 6100707 (2018) (7 pages).
- R-1 Thermodynamic Picture of Dimer-Mott Organic Superconductors Revealed by Heat Capacity Measurements with External and Chemical Pressure Control
Y. Nakazawa, S. Imajo, Y. Matsumura, S. Yamashita, and H. Akutsu
Crystals **8**(4), 143 (2018) (16 pages).
- R-2* 散乱法を用いた溶液中での高分子ナノ集合体の構造解析
佐藤尚弘, 李 妍
高分子論文集 **75**(4), 293–336 (2018).
- B-1* 不凍タンパク質の機能と応用 第13章 熱測定法による不凍タンパク質の低温挙動解析
宮崎裕司(津田 栄(監修))B5判, 289頁
シーエムシー出版(2018年8月1日発行).

B-2* 物質化学 100 問集

鈴木 晴, 今城周作, 野本哲也(執筆分担)(大阪大学インタラクティブ物質科学・カデットプログラム物質化学 100 問集出版プロジェクト編(今田勝巳, 奥村光隆, 久保孝史, 塚原聡, 中澤康浩(監修)))A4 判, 276 頁
大阪大学出版会(2018 年 2 月 28 日発行).

B-3 Conformational Properties of Cellulose and Amylose Derivatives

K. Terao and T. Sato

In *Bioinspired Materials Science and Engineering*, G. Yang, L. Xiao, and L. Lamboni Eds., Wiley, pp. 167–183 (2018).

B-4* 構造制御による革新的ソフトマテリアル創成一ブロック共重合体の精密階層制御・解析・機能化 第 2 章 分子キャラクタリゼーションと溶液中での自己集合体形成

高橋倫太郎, 佐藤尚弘(日本化学会編)B5 判, 210 頁
化学同人(2018 年 5 月 28 日発行).

B-5* 刺激応答性高分子ハンドブック 第 1 編・第 3 章 温度応答性高分子の溶液物性解析

佐藤尚弘(宮田隆志(監修))B5 判, 864 頁
エヌ・ティー・エス(2018 年 12 月発行).

M-1* 高スピンコバルト(II)錯体 $[\text{Co}^{\text{II}}(\text{NO}_3)_2(\text{H}_2\text{O})_n(\text{R}_1, \text{R}_2\text{-prpz})]$ ($n = 0, 1$) の熱容量と相転移

宮崎裕司, 中野元裕
低温センター研究報告書(平成 28 年度)(2018) 印刷中.

M-2* フラーレン C_{60} に内包された Li^+ イオンの回転運動

鈴木晴
ナノ学会会報 **16**(2), 59–65 (2018).

M-3* 二次元ダイマー Mott 型分子性塩の金属・絶縁体相境界近傍での格子熱容量の異常

松村祐希, 山下智史, 坪 広樹, 中澤康浩
低温センター研究報告書(平成 28 年度)(2018) 印刷中.

M-4* 若手熱測定研究者のための国際シンポジウム(ISST-YT)

中澤康浩
熱測定 **45**(4), 185 (2018).

M-5* 「分ける」と「混ぜる」

佐藤尚弘
高分子 **67**(7), 384 (2018).

M-6* 高分子分析の進歩

佐藤尚弘

高分子論文集 **75**(3), 241–242 (2018).