

## 中村 敏 和 (チームリーダー)

### B-1) 学術論文

- S. KITOU, T. TSUMURAYA, H. SAWAHATA, F. ISHII, K. HIRAKI, T. NAKAMURA, N. KATAYAMA and H. SAWA**, “Ambient Pressure Dirac Electron System in Quasi-Two-Dimensional Molecular Conductor  $\alpha$ -(BETS)<sub>2</sub>I<sub>3</sub>,” *Phys. Rev. B* **103**, 035135 (8 pages) (2021). DOI: 10.1103/PhysRevB.103.035135
- E. ITO, S. TAKANO, T. NAKAMURA and T. TSUKUDA**, “Dimerization and Bonding of Icosahedral M@Au<sub>12</sub> (M = Pd, Pt) Superatoms,” *Angew. Chem., Int. Ed.* **160**, 645–649 (2021). DOI: 10.1002/anie.202010342
- A. ROHWER, M. DRESSEL and T. NAKAMURA**, “Deuteration Effects on the Transport Properties of (TMTTF)<sub>2</sub>X Salts,” *Crystals* **10**, 1085 (18 pages) (2020). DOI: 10.3390/cryst10121085
- S. KITOU, Y. HOSOGI, R. KITAURA, T. NAITO, T. NAKAMURA and H. SAWA**, “Direct Observation of Molecular Orbitals Using Synchrotron X-Ray Diffraction,” *Crystals* **10**, 998 (14 pages) (2020). DOI: 10.3390/cryst10110998
- H. HIRAI, S. TAKANO, T. NAKAMURA and T. TSUKUDA**, “Understanding Doping Effects on Electronic Structures of Gold Superatoms: A Case Study of Diphosphine-Protected M@Au<sub>12</sub> (M = Au, Pt, Ir),” *Inorg. Chem.* **59**, 17889–17895 (2020). DOI: 10.1021/acs.inorgchem.0c00879
- S. KITOU, T. MANJO, N. KATAYAMA, T. SHISHIDOU, T. ARIMA, Y. TAGUCHI, Y. TOKURA, T. NAKAMURA, T. YOKOYAMA, K. SUGIMOTO and H. SAWA**, “Collapse of the Simple Localized 3d<sup>1</sup> Orbital Picture in Mott Insulator,” *Phys. Rev. Res.* **2**, 033503 (8 pages) (2020). DOI: 10.1103/PhysRevResearch.2.033503
- K. GOTO, M. ASADA, T. NAKAMURA and F. TANI**, “Switching Photomechanical Response by Structural Phase Transition and Evaluating Responsivity from Relaxation,” *ChemPhotoChem* **4**, 1–73 (2020). DOI: 10.1002/cptc.201900269

### B-4) 招待講演 (\* 基調講演)

- T. NAKAMURA**, “Magnetic Resonance Investigation of One-dimensional Organic Conductors,” The 5<sup>th</sup> International Symposium of Quantum Beam Science (ISQBS), Ibaraki Univ. (Japan) and Online, November 2021.
- T. NAKAMURA**, “ESR Investigation of Functional Molecular Magnetic Materials,” Modern Development of Magnetic Resonance 2020, Zavoisky Physical-Technical Institute (Russia) and Online, September 2021.\*

### B-7) 学会および社会的活動

#### 学協会役員等

電子スピンスイエンズ学会代議員 (2018–).

#### 学会の組織委員等

The 22<sup>nd</sup> Meeting of the International Society of Magnetic Resonance (ISMAR 2021), Osaka, Japan, Executive Committee, 実行委員 (2017–).

#### 文部科学省, 学術振興会, 大学共同利用機関等の委員等

国立研究開発法人科学技術振興機構 創発的研究支援事業 外部専門家 (2020).

#### その他

「化学便覧 基礎編 改訂6版 日本化学会編集」, 篠原久典他(編), 丸善, 編集委員 (2020). ISBN 978-4-621-30521-8