

電子科学研究所 学術講演会

講演者: **Prof. Takashi Nakanishi**
National Institute for Materials Science
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演題: **Alkyl- π Functional Molecular Liquids and Gels**

会場: 電子科学研究所 1階会議室

日時: 令和6年7月12日(金) 10:30~12:00

概要:

The development of optical and electronic-active soft materials draws attention to the application of soft(bio) electronics. Solvent-free molecular liquids at room temperature obtained by modifying a π -conjugated moiety with bulky yet flexible branched-alkyl chains are promising functional soft materials.¹⁾ The π -conjugated units responsible for the optoelectronic functions are covered and protected by insulating alkyl chains, which has the advantage that the optoelectronic functions inherent to π -conjugated molecules can be expressed even in a bulk liquid state. We have developed alkyl- π molecular liquids possessing luminescent^{2,3)}, electrochromic⁴⁾, photoconductive⁵⁾, and electret^{6,7)} functions and recently reported π -gels⁸⁾ based on alkyl- π molecular liquids. In this seminar, I will introduce the latest research achievements.

References

1) *Responsive Mater.* **2023**, *1*, e20230001; 2) *Nat. Commun.* **2013**, *4*, 1969; 3) *Sci. Rep.* **2017**, *7*, 3146; 4) *Chem. Asian J.* **2018**, *13*, 770; 5) *Nat. Chem.* **2014**, *6*, 690; 6) *Nat. Commun.*, **2019**, *10*, 4210; 7) *Angew. Chem. Int. Ed.* **2024**, *63*, e202402874.

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