

Research Information

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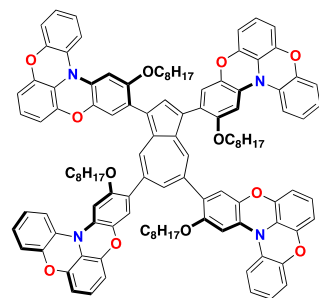
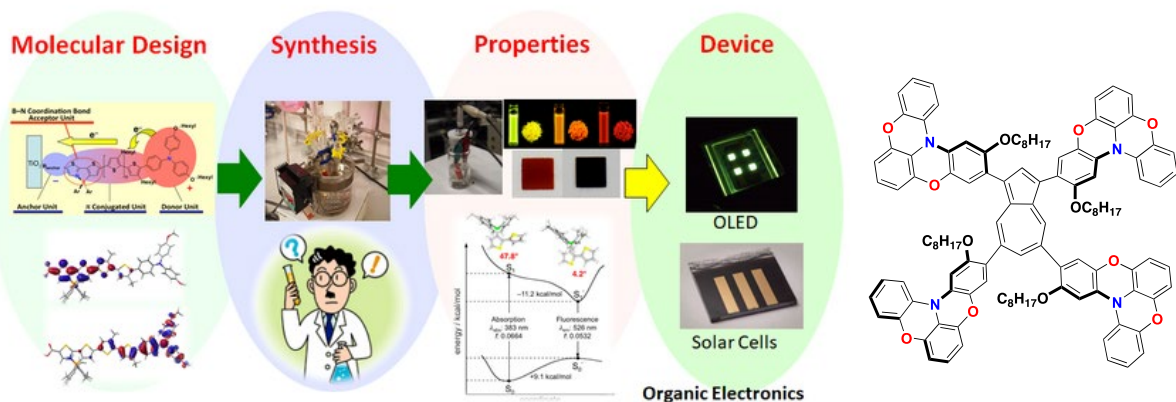
Staff: Assistant Prof. Tomoya Nakamura



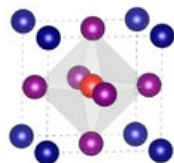
Research Field

Topics

- 1) Chemistry of new pi-conjugated molecules and materials
- 2) Creation of a functional pi-electron system utilizing the characteristics of elements
- 3) Printable electronics: Development of next-generation solar cells

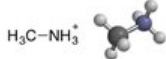


ABX₃-type perovskite

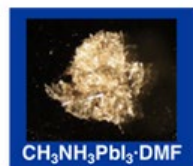
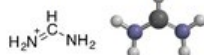


- : A site (MA⁺, FA⁺, Cs⁺, ...)
- : B site (Pb²⁺, Sn²⁺)
- : X site (I⁻, Br⁻, Cl⁻)

Methylammonium (MA⁺)



Formamidinium (FA⁺)

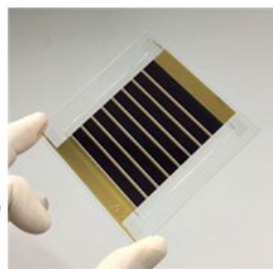


CH₃NH₃PbI₃·DMF

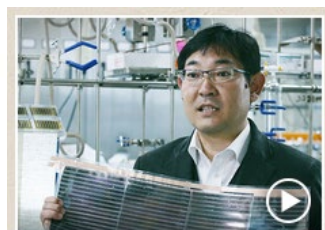
- High purity (99.998%)
- High solubility in DMSO

wide process window

CH₃NH₃PbI₃



Perovskite Solar Modules



若宮淳志 教授
化学研究所



「塗って作れる太陽電池」