

# A01-1

## Closely stacked $\pi$ -systems for condensed conjugation

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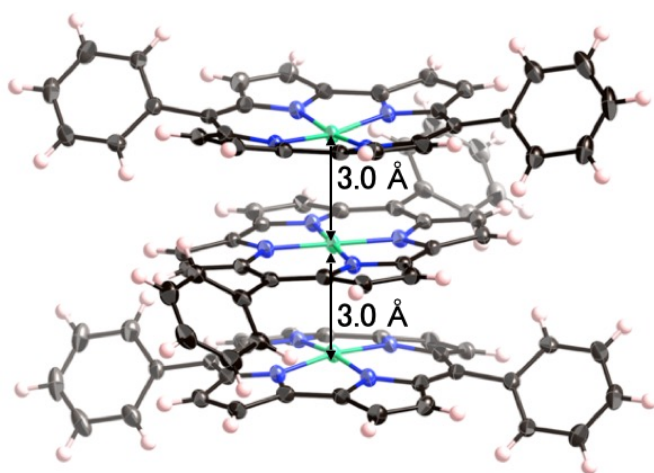
Co-investigators: Takuji Hatakeyama (Kyoto Univ), Hiromitsu Maeda (Ritsumeikan Univ)

**Our Mission:** Realization of a new electronic conjugation in intermolecular spaces via precise design of molecules with minimum intermolecular distances

### Aims of A01-1

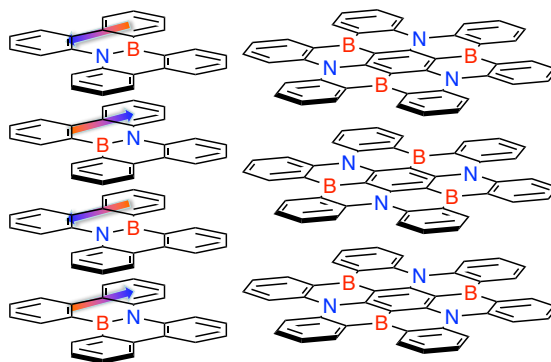
- Design and synthesis of  $\pi$ -systems in closest proximity
- Shrinking the intermolecular spaces through elimination/replacement of C–H bonds

Close stacking of antiaromatics



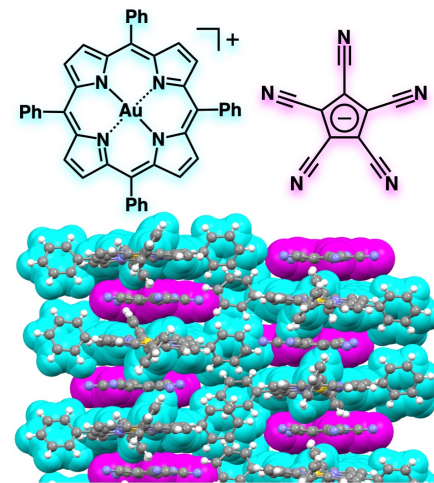
*Three-dimensional aromaticity*

Introduction of heteroatoms



*Dipole–dipole interaction  
Lewis acid–base pairing*

Arrangement of charged  $\pi$ -systems



*Ion pairing*