

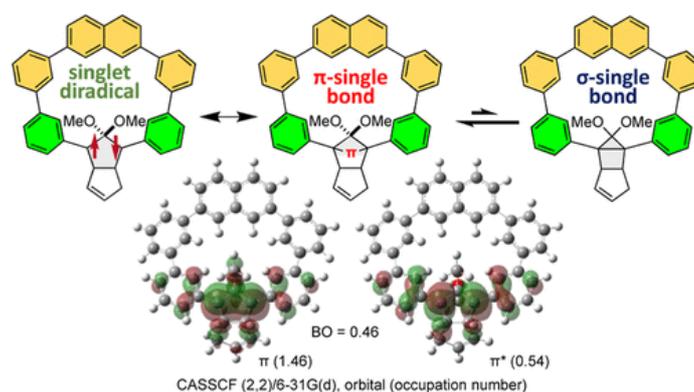
# Development of Novel Molecular Structures and Reactions Based on Spin Manipulation

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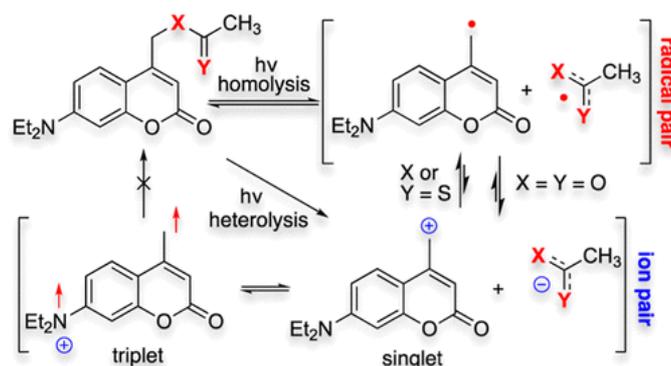
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The structures, functions, and reactions of molecules and materials are governed by electrons, with the direction of their spins serving as a critical factor in controlling these properties. In this lecture, I will introduce examples of the synthesis of  $\pi$  single-bond species through spin manipulation of diradicals, as well as the creation of ground-state triplet cation species and their application to photodissociation reactions.

## 1. Synthesis of $\pi$ Single-Bond Species via Spin Manipulation of Diradicals

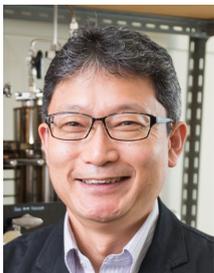


## 2. Creation of Ground-State Triplet Cation Species through Spin Manipulation



## References

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