Divergent and Multi-stage Photoisomerization of Four-coordinated Boron Compounds

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Abstract: After a decade of explorations, our group have discovered a number of boron-containing systems that possess interesting and unique photochemical properties. Some of the novel species have been found to demonstrate photochromic behaviour, making them potential candidates of molecular switches.[1] Notably, the photochemical behavior of organoboron compounds are found to be directed by both the aryl substituents on boron center and the chelating ligand framework.[2] To further unveil the richness and complexity of boron photochemistry, we set out to design and synthesize a new class of boraheterocycles, including a series of unsymmetrically substituted boron molecules and benzothiazole/thiazole donor supported analogues. This talk will focus on the divergent and multi-stage photo/thermal transformations of these compounds and their photophysical properties.

Reference: