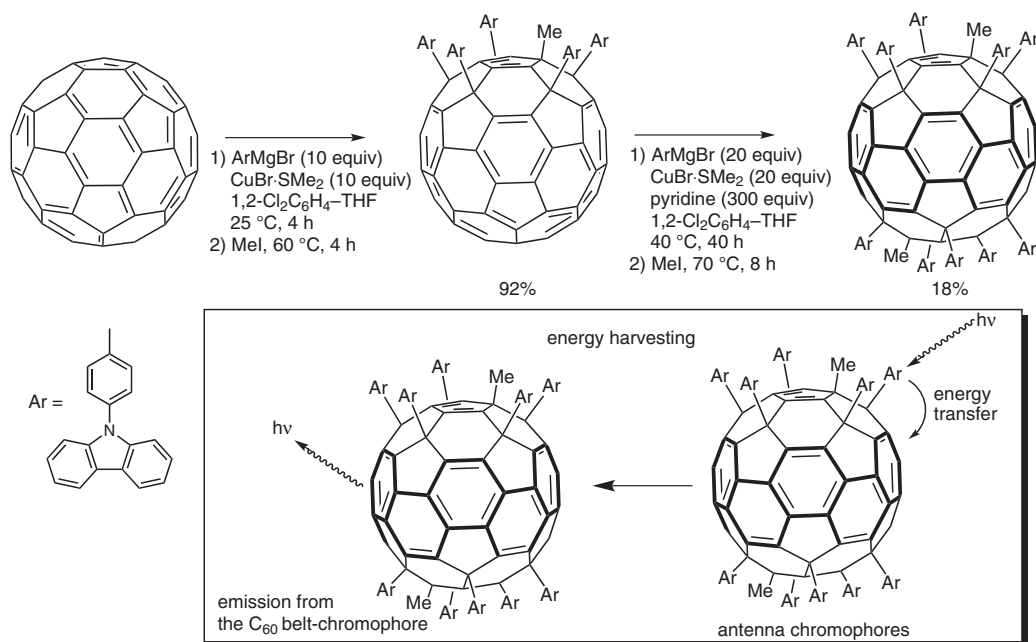


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Light Emission of [10]Cyclophenane Through Energy Transfer From Neighboring Carbazolyphenyl Dendrons
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Bright Light from C₆₀ Chromophores



Significance: The chemistry of C₆₀ has been extensively investigated, however, there are relatively few examples of functional assemblies. This contribution demonstrates that C₆₀ can serve as a new synthetic starting material for a novel photonic construct, wherein ten pendant carbazolyphenyl chromophores can be used to harvest light and then transfer it to the belt-chromophore about the center of the scaffold.

Comment: Stable bright chromophores are of increasing importance for sensing, imaging, and display technologies. The chromophore created from the C₆₀ scaffold lacks unsubstituted edge carbon (C-H) bonds that are typically a weak point in other chromophores. The chemistry to functionalize the lower hemisphere of the C₆₀ is less efficient, however, the chromophore is assembled with only a few synthetic steps.

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