Harvesting Light From Dark States of OLEDs in Reflective Cavity

Organic LEDs (OLEDs) emit light through the generation of singlet excitons...

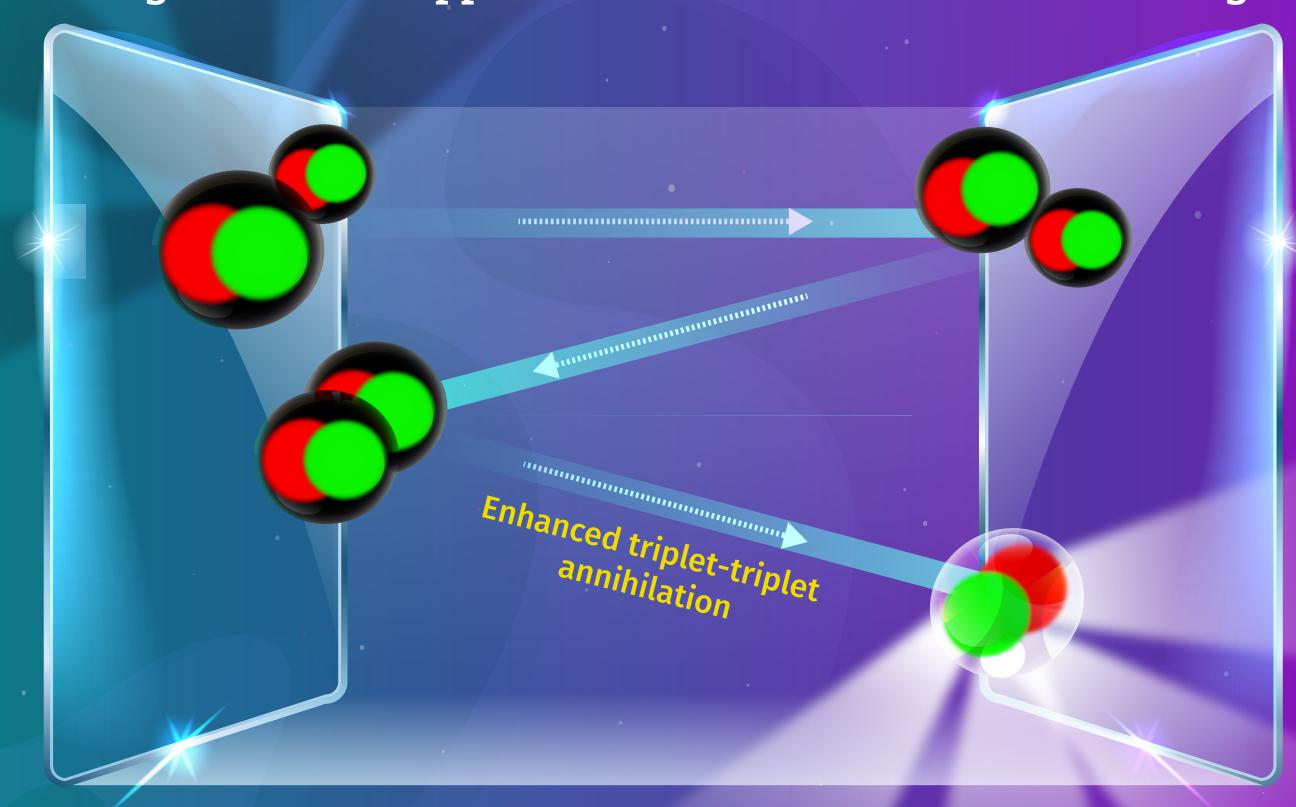
ght singlet exciton

...but the abundance of dark triplet excitons are a potential drawback

Dark triplet exciton

Can the dynamics of dark triplet excitons be manipulated for light emission?

Charge carriers trapped between two silver mirrors with light



Dark exciton states converted to bright polariton states

Dark states of organic LED molecules in reflective cavity can be converted to bright states, significantly increasing the yield of light emitted

Chemical Science



Manipulating molecules with strong coupling: harvesting triplet excitons in organic exciton microcavities

Clark and Musser et al. (2019) | DOI:10.1039/C9SC04950A

