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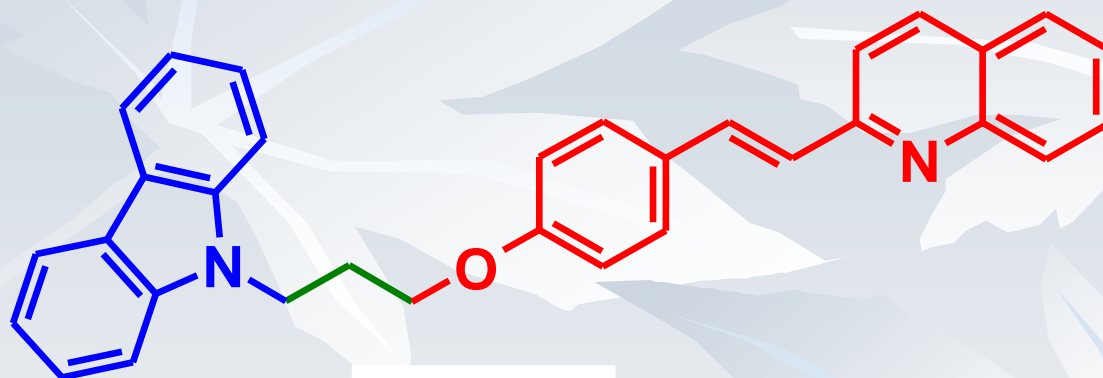
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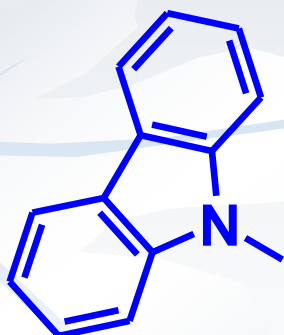
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Singlet-singlet energy transfer and photoisomerization in a carbazole-styrylquinoline dyad

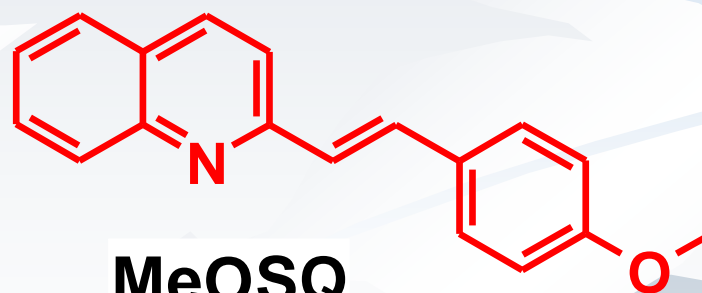
Structures of the CBz-SQ dyad and model compounds



SQ3CBz

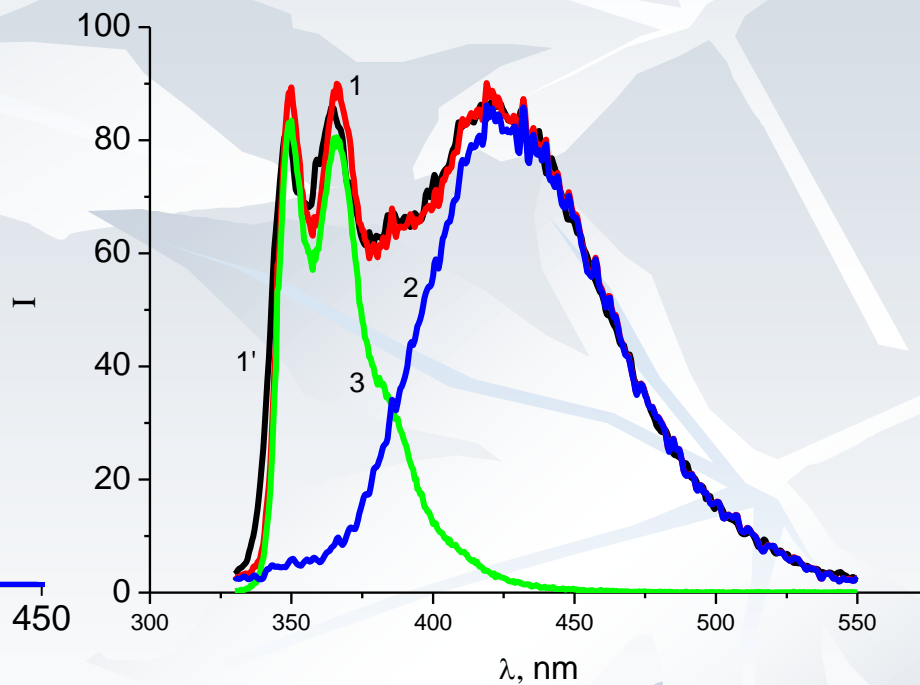
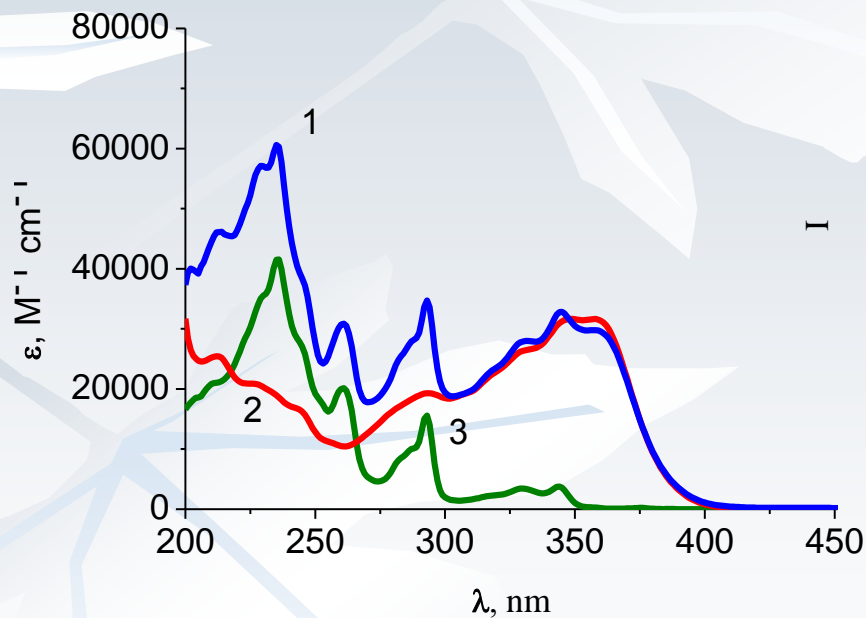


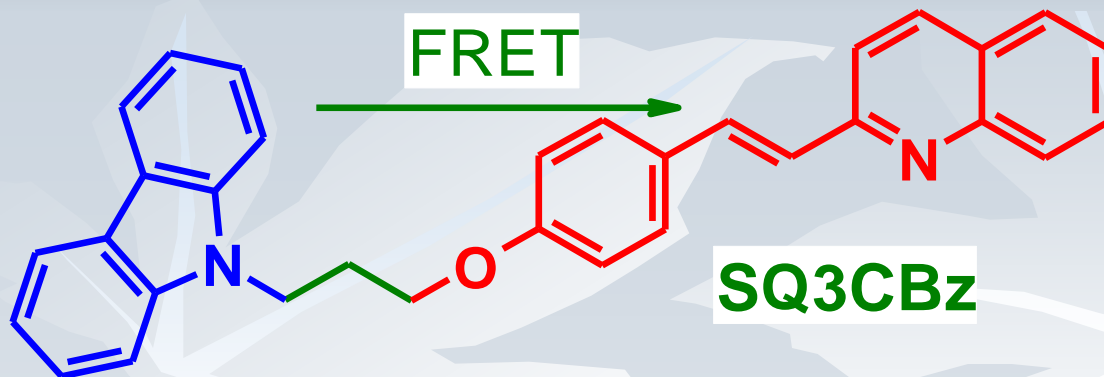
MeCBz



MeOSQ

Absorption and emission spectra of SQ3CBz (1, 1'), MeOSQ (2) and MeCBz (3) in EtOH



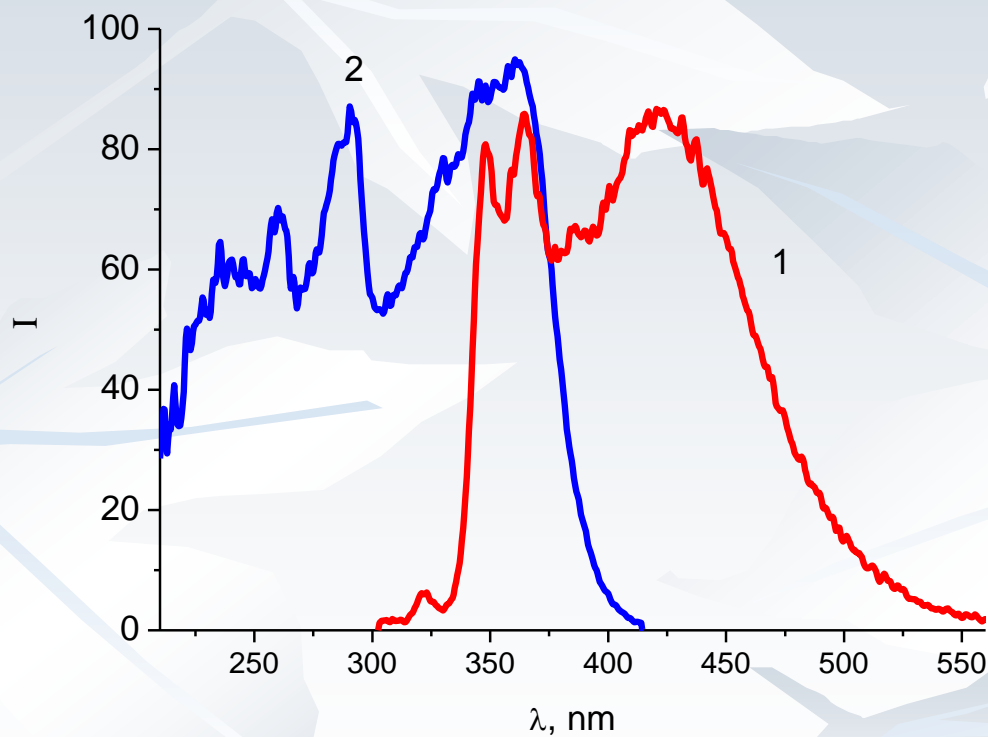


Quantum yields of MeCBz, MeOSQ and SQ3CBz ($\lambda_{\text{exc}} = 293 \text{ nm}$)

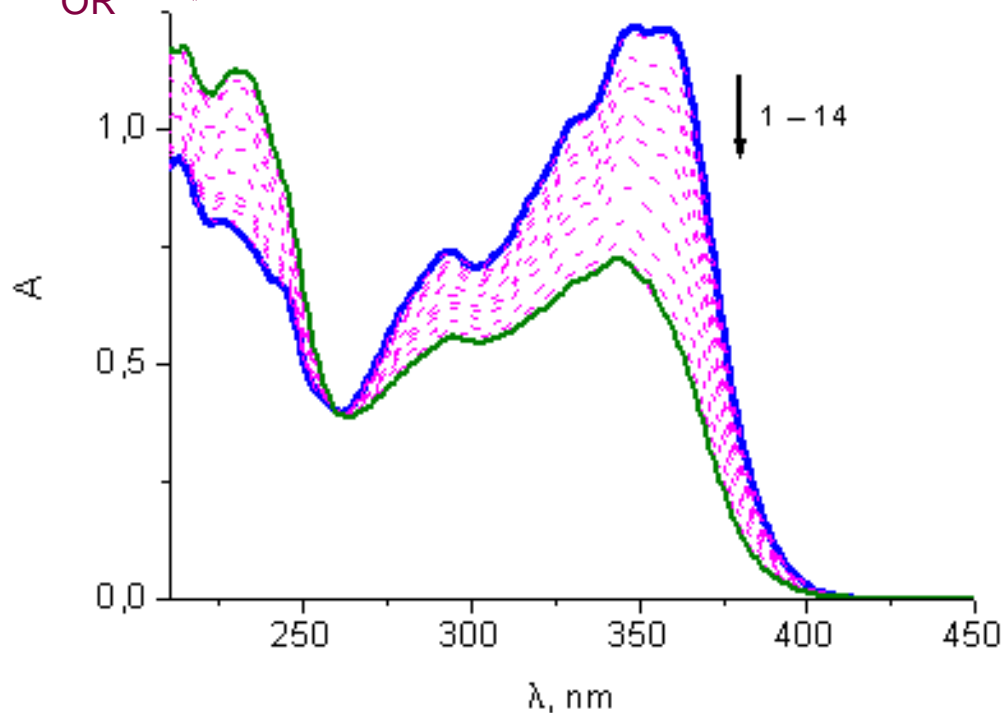
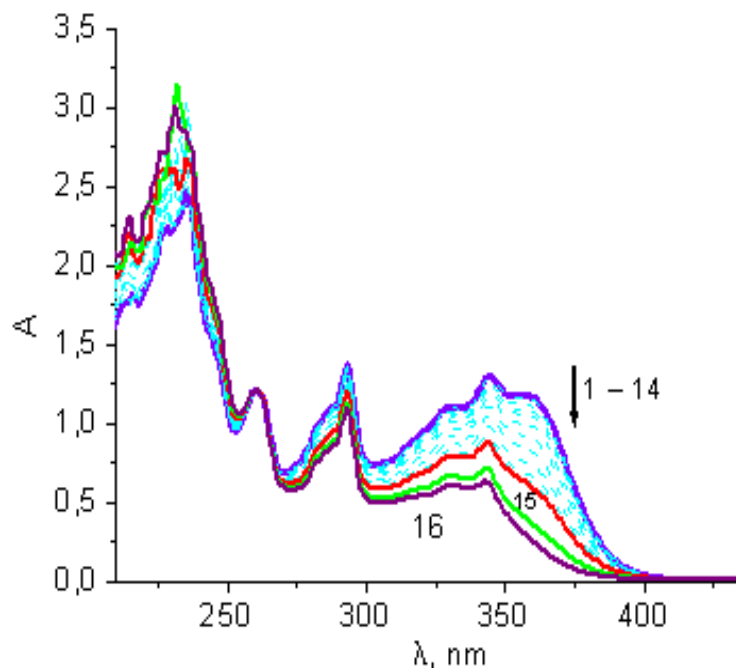
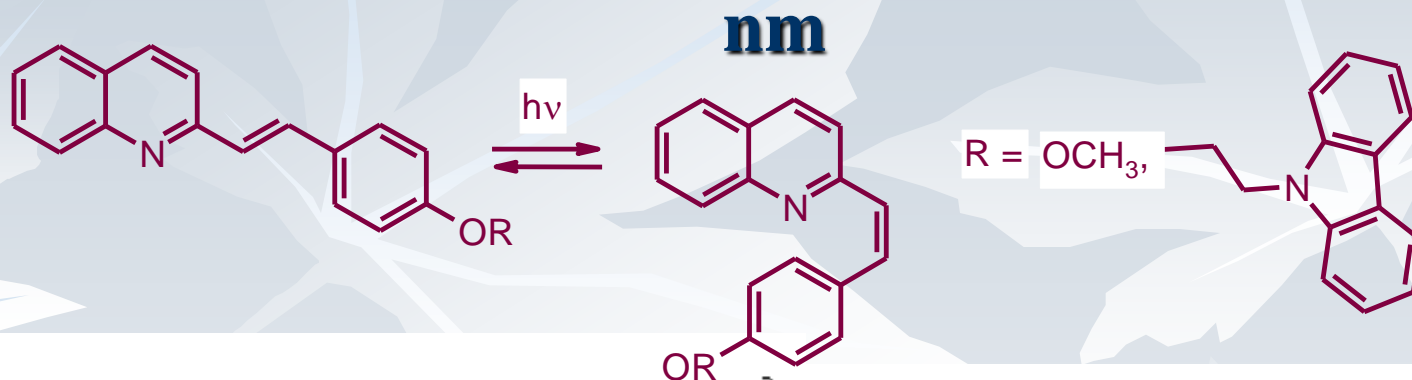
| Compound | MeCBz | MeOSQ | SQ3CBz | |
|-----------------------|-------|-------|--------------|-------------|
| | | | CBz-fragment | SQ-fragment |
| φ_{fl} | 0.43 | 0.018 | 0.022 | 0.037 |

$$\varphi_{\text{FRET}} = 1 - \frac{\varphi_D'}{\varphi_D} = 1 - \frac{0.022}{0.43} = 0.95$$

1 – Fluorescence spectrum of SQ3CBz ($\lambda_{\text{exc}} = 293 \text{ nm}$), 2 – excitation spectrum of SQ3CBz ($\lambda_{\text{obs}} = 424 \text{ nm}$)



Spectral changes upon irradiation of solutions of SQ3CBz (left) and MeOSQ (right) in EtOH with $\lambda = 316$ nm



$$\varphi_{EZ} = 0.46 - 0.48 \text{ and } \varphi_{ZE} = 0.45 - 0.50$$

The background of the slide features a repeating pattern of stylized, light blue leaves. The leaves are rendered in a flat, graphic style with visible veins, set against a light blue gradient background. The pattern is dense and covers the entire area.

Thanks for attention!