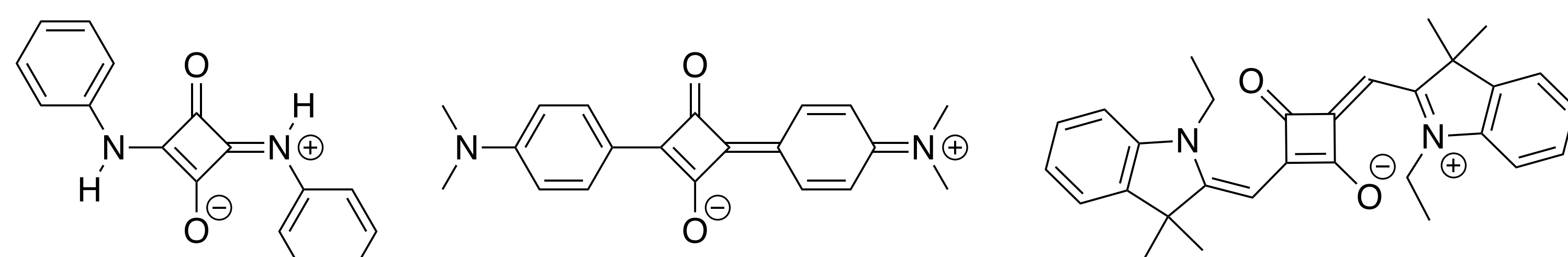


SPECTROSCOPIC STUDIES ON PYRROLYL-SQUARAIN DYES IN MOLECULAR, IONIC & EUTECTIC SOLVENTS

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SQUARAIN DYES [1]

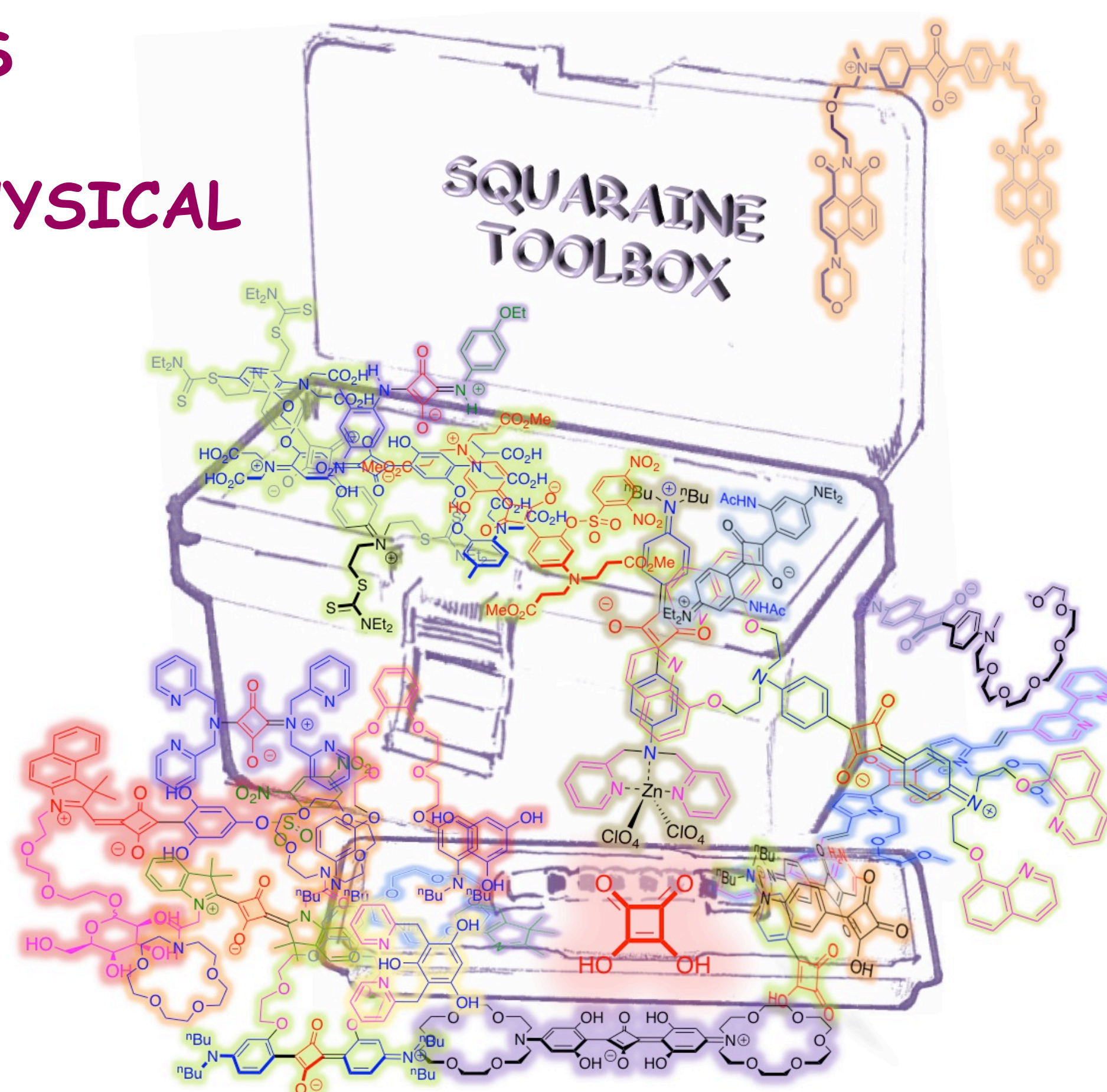


**FACILE SYNTHESIS
&
TUNABLE PHOTOPHYSICAL
PROPERTIES**

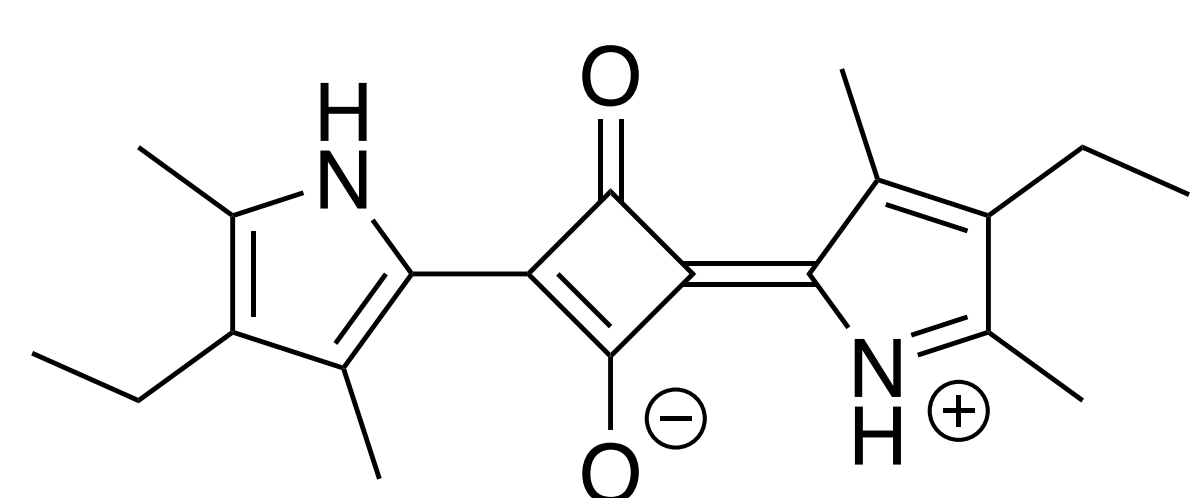
PHOTOSTABLE, HIGH ϵ
NEAR-IR EMISSIONS

APPLICATIONS

BIOIMAGING
SENSORS
MATERIALS
PHOTOVOLTAICS
PHOTODYNAMIC &
PHOTOTHERMAL
THERAPIES



BIS(KRYPTOPYRROL-2-YL)SQUARAIN

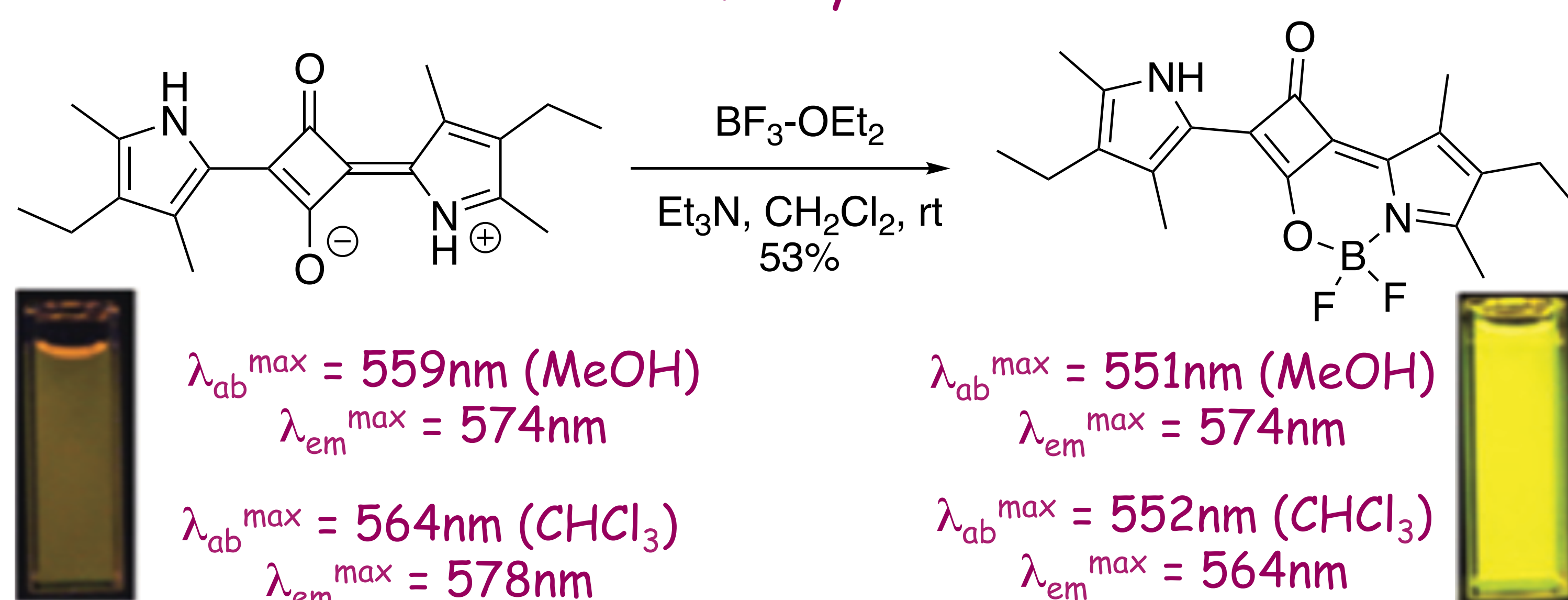


1ST REPORTED IN 1965 [2]
complete characterization was not
done "because of the poor
solubility of the new dye..."
 $\lambda_{ab}^{max} = 560\text{nm}$ (CHCl_3)

suggested as a potential sensor for: amines and cyanide ion

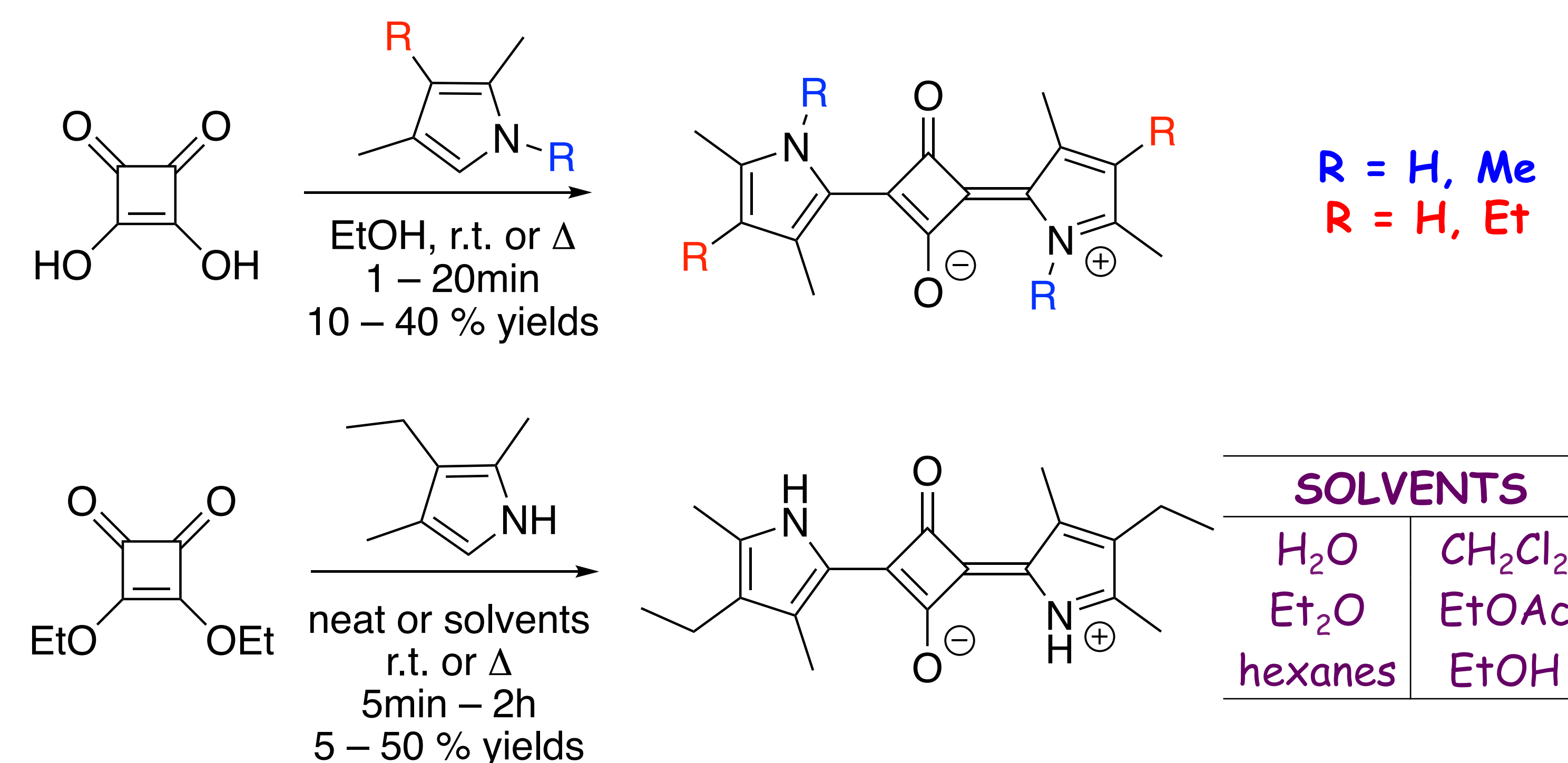
USED AS A STARTING MATERIAL IN 2017 [3]

no NMR characterization; only some UV-vis/FLUOR data

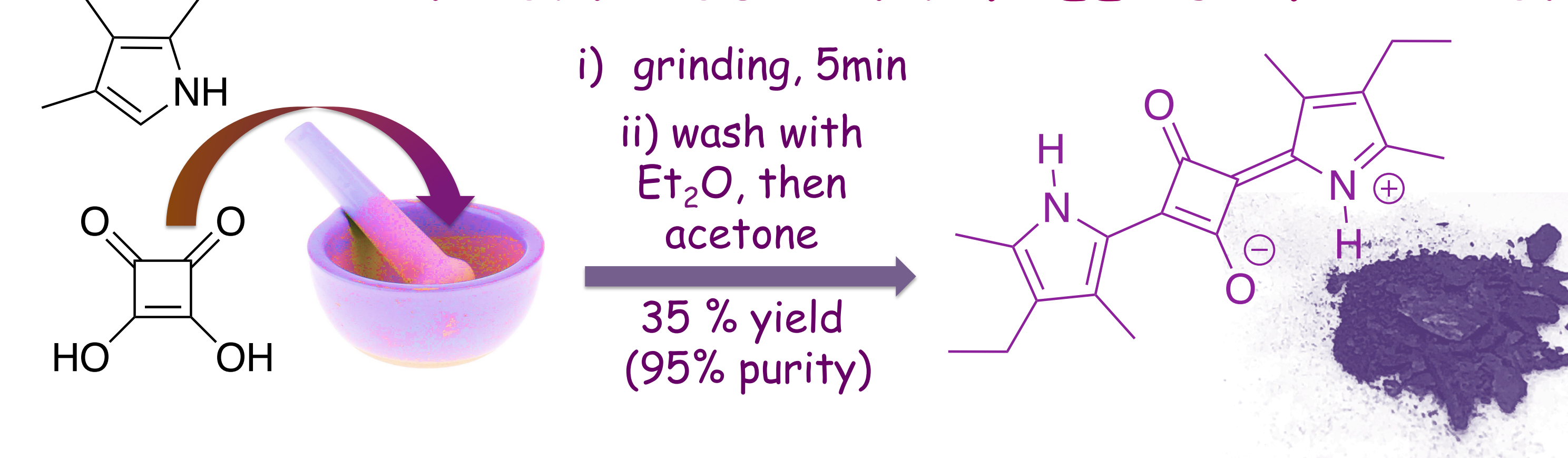


SYNTHESES OF PYRROLYL SQUARAINES

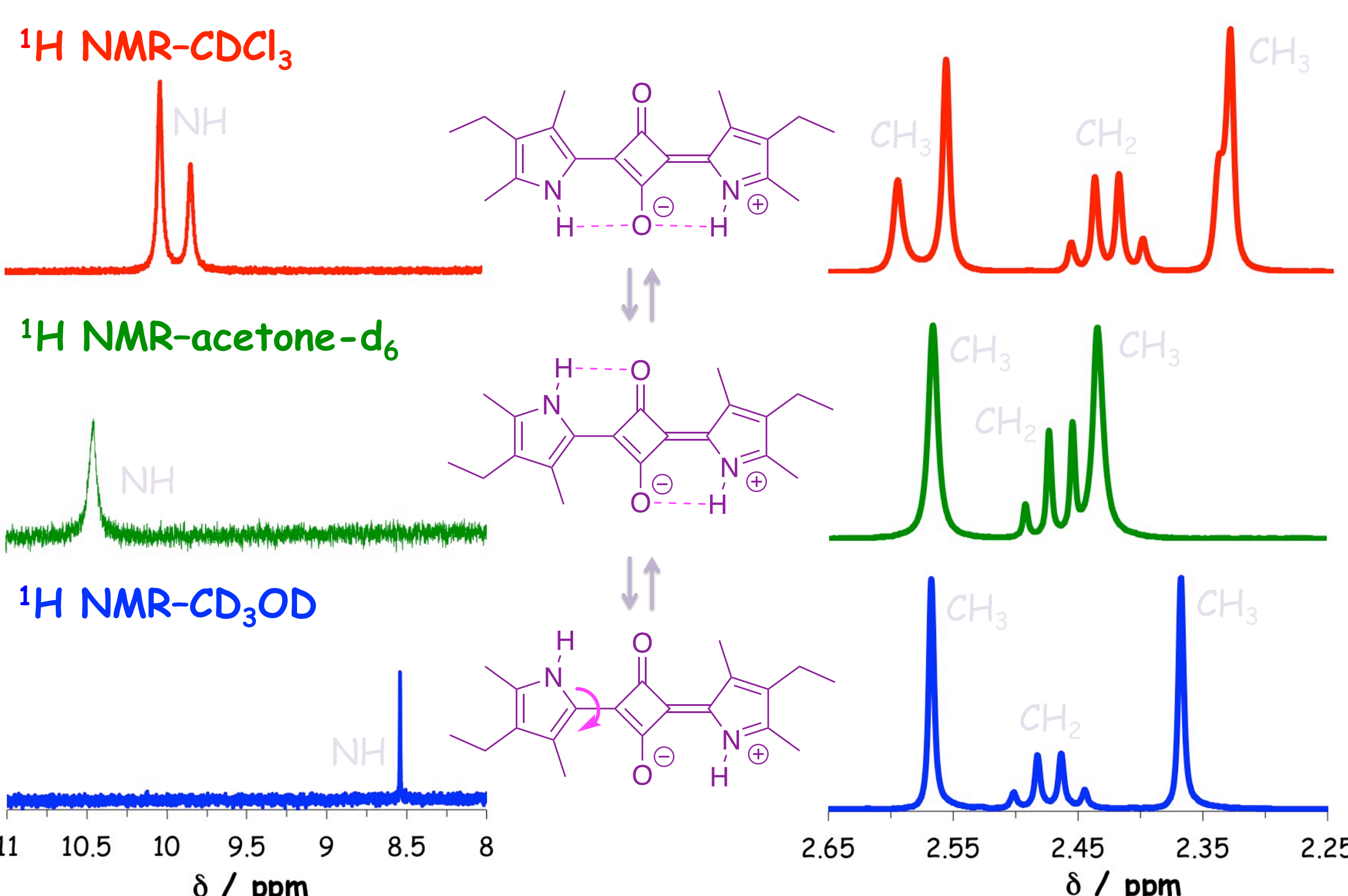
SOLUTION-BASED / CONVENTIONAL SYNTHESES



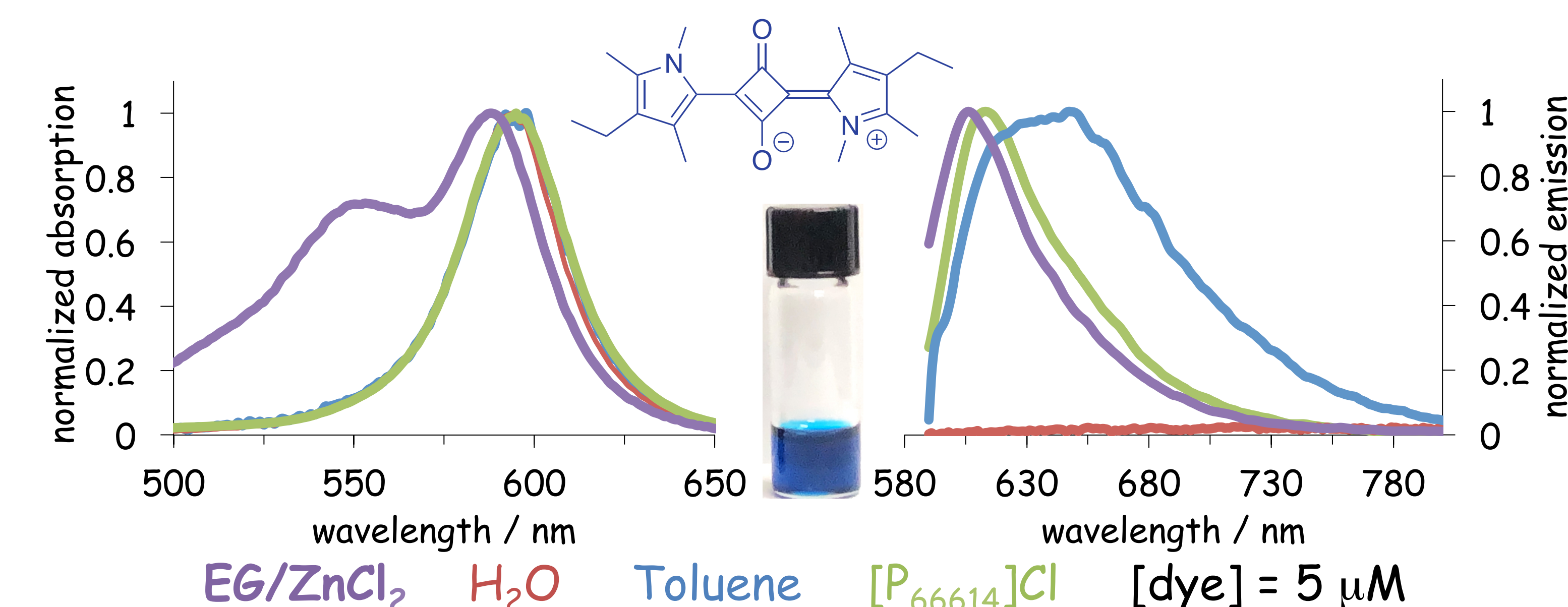
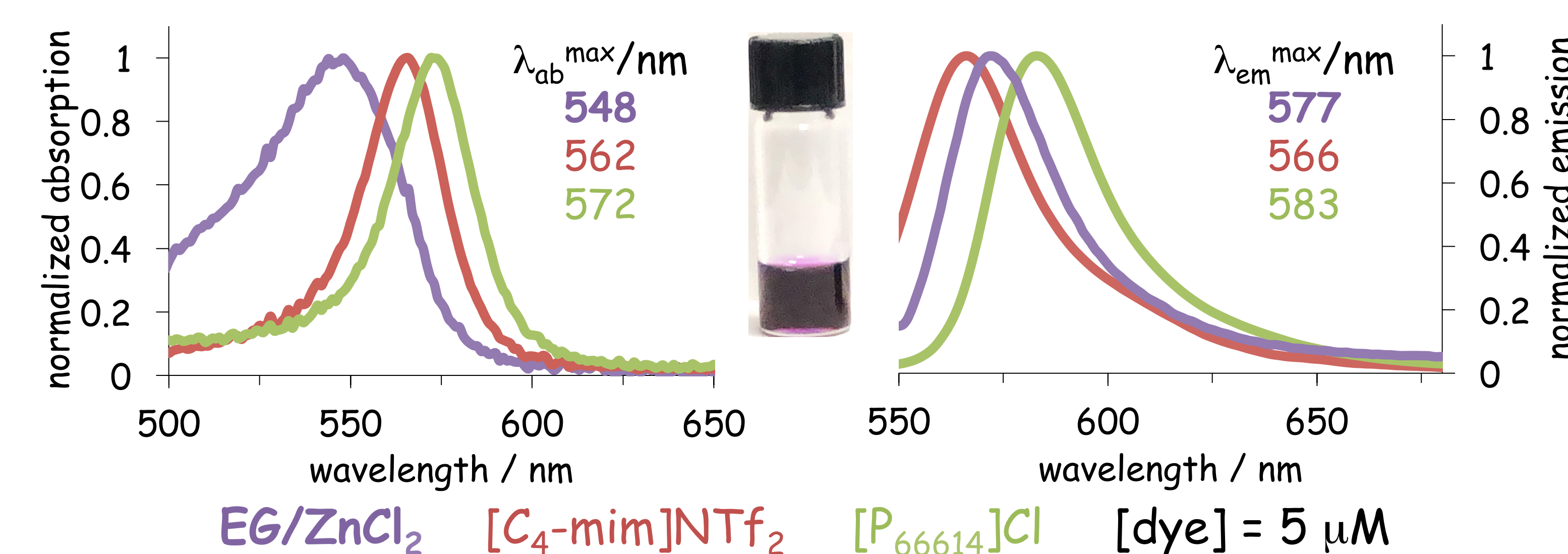
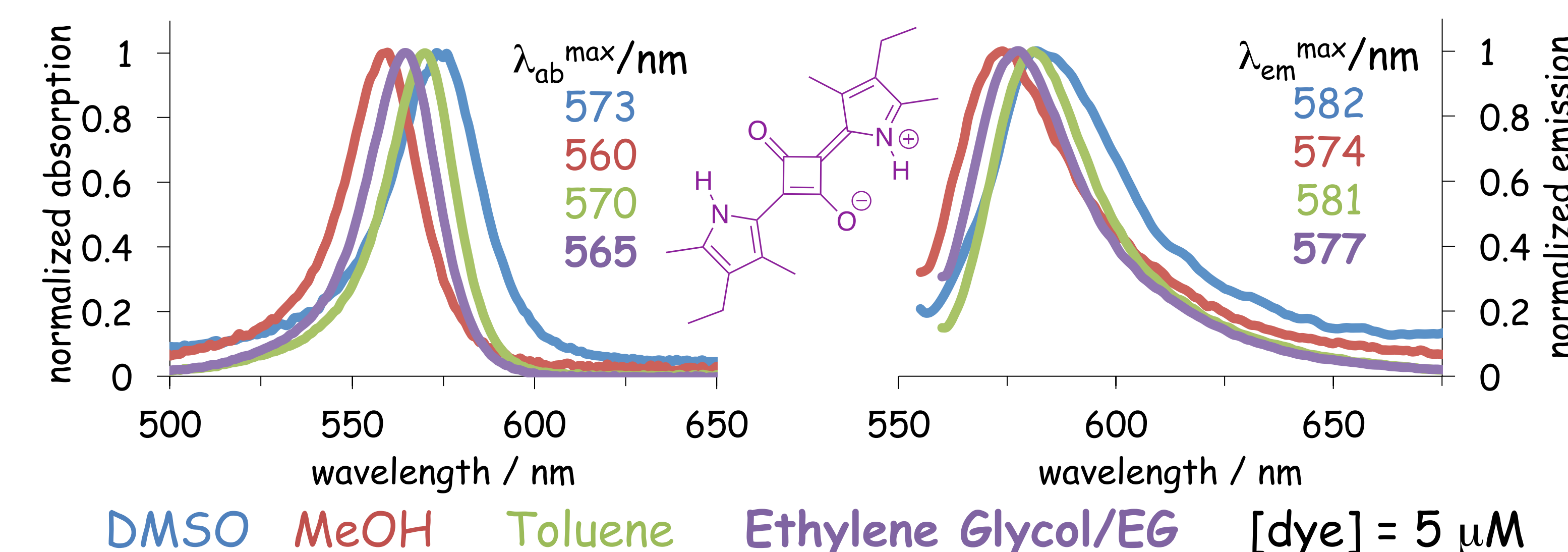
MECHANOCHEMICAL SYNTHESIS & CHROMATOGRAPHY-FREE PURIFICATION



NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY



UV-VIS & STEADY-STATE EMISSION SPECTROSCOPIC STUDIES



REFERENCES

- [1] a) D.D. Ta, S.V. Dzyuba, *Chemosensors*, 2021, 9, 302; b) J. He, Y.J. Sun, X. Sun, W. Qiao, J. Ok, T.-I. Kim, Z. Li, *Adv. Funct. Mater.* 2021, 31, 2008201.
- [2] a) A. Triebs, K. Jacob, *Angew. Chem. Int. Ed.* 1965, 4, 694; b) A. Triebs, K. Jacob, *Just. Liebigs Ann. Chem.* 1966, 699, 153.
- [3] Y. Kubota, M. Tsukamoto, K. Ohnishi, J. Jin, K. Funabiki, M. Matsui, *Org. Chem. Front.* 2017, 4, 1522.

ACKNOWLEDGEMENTS

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