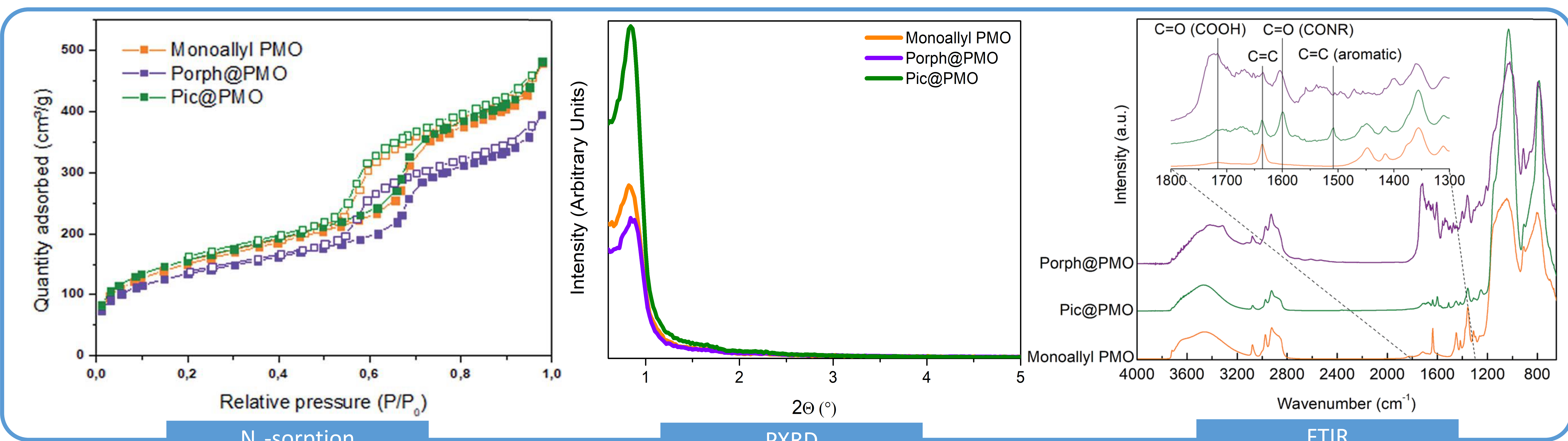


Functionalized Periodic Mesoporous Organosilicas for Luminescence and Catalysis

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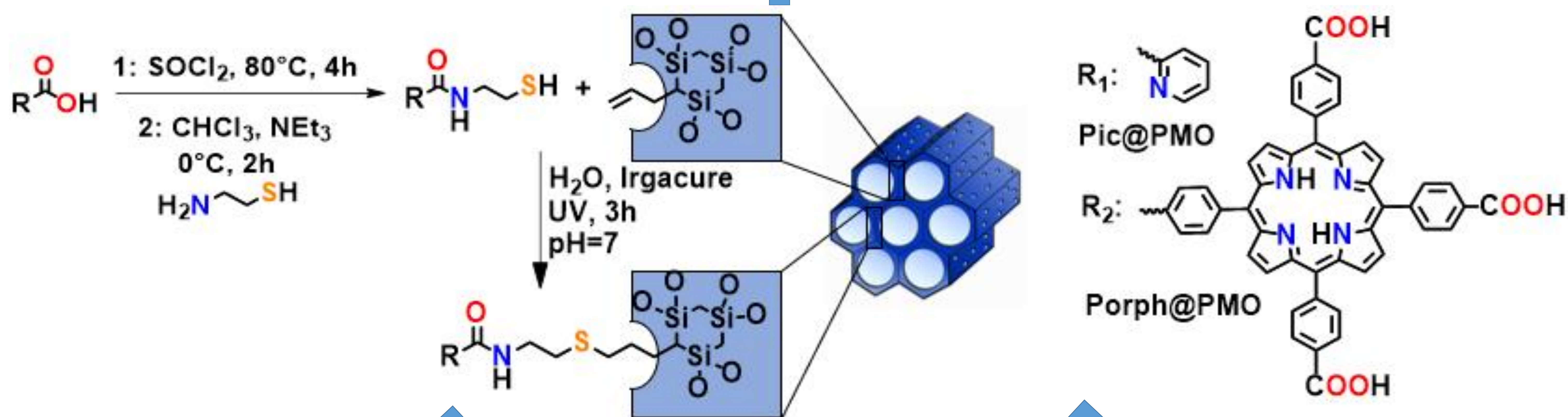


N₂-sorption

PXRD

FTIR

Characterization

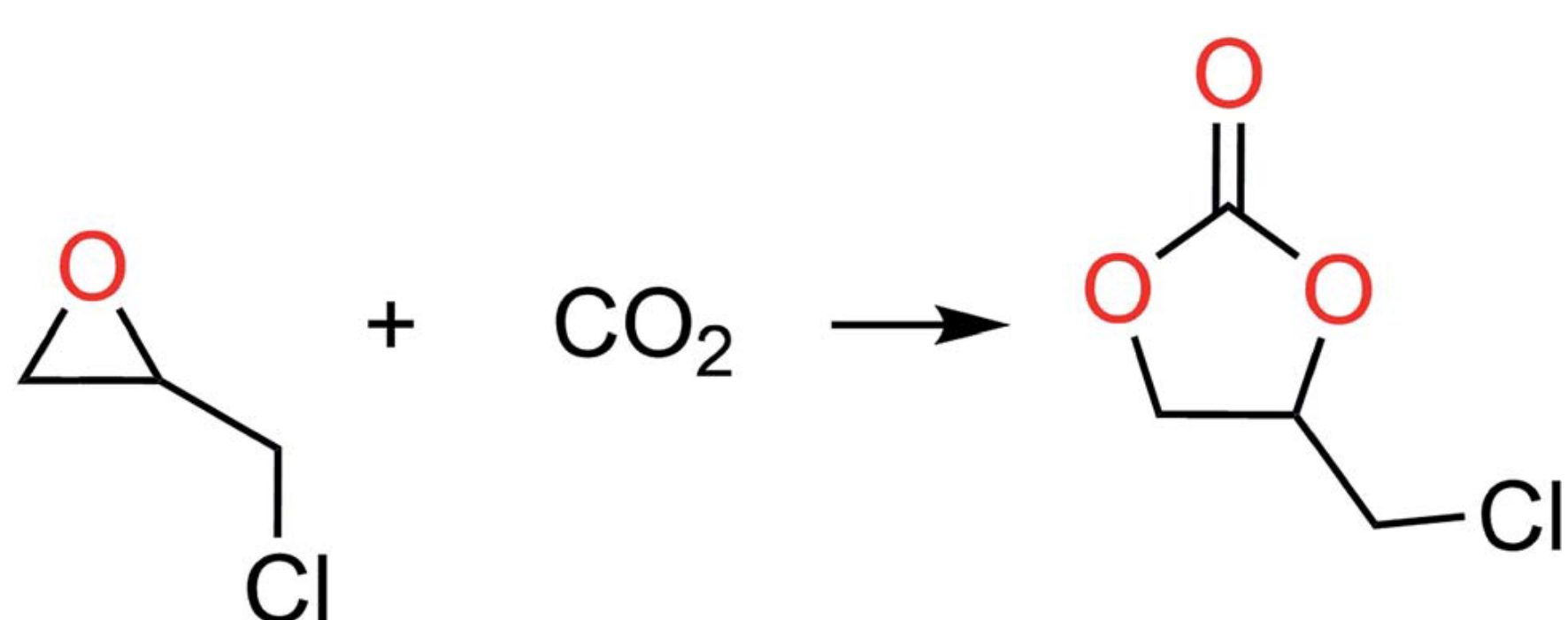


Metal-free

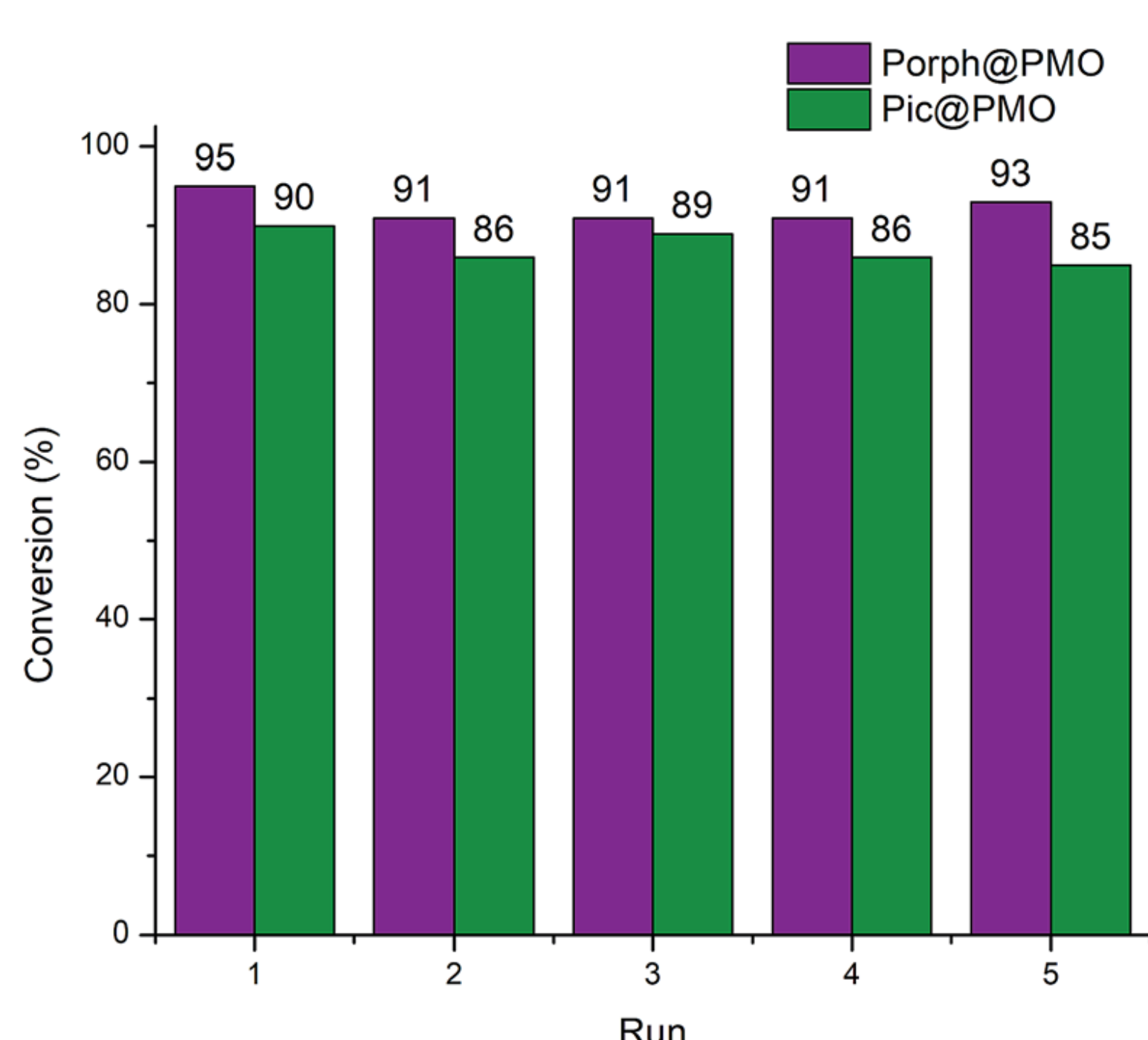
Ln³⁺

Catalysis

Luminescence



Catalytic system	Conversion (%)
Porph + DMAP	97
Porph	73
Pic + DMAP	97 (Yield: 23)
Porph@PMO + DMAP	89
Porph@PMO	80
Pic@PMO + DMAP	91
Pic@PMO	75
PMO + DMAP	31
DMAP	27
Blank reaction	0



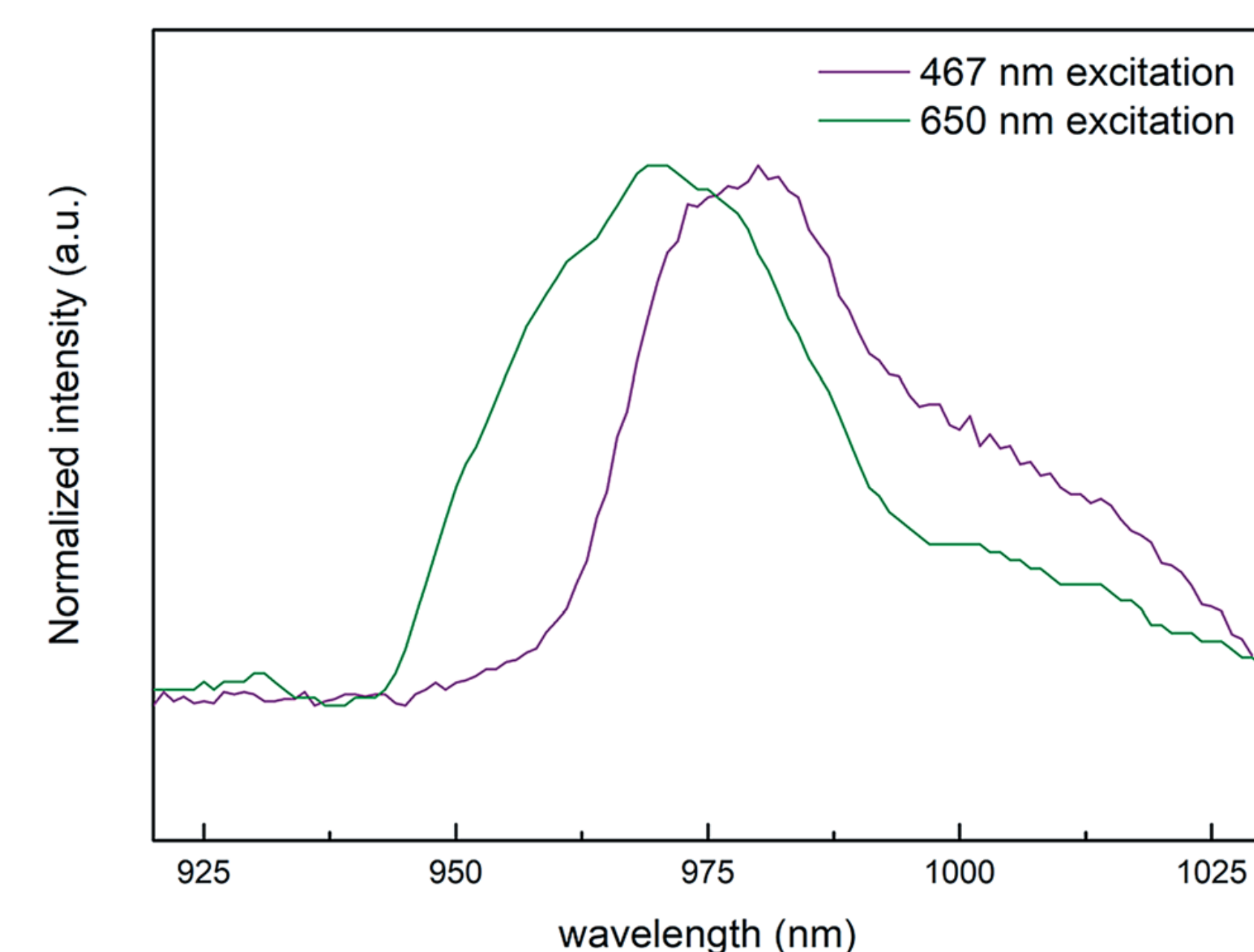
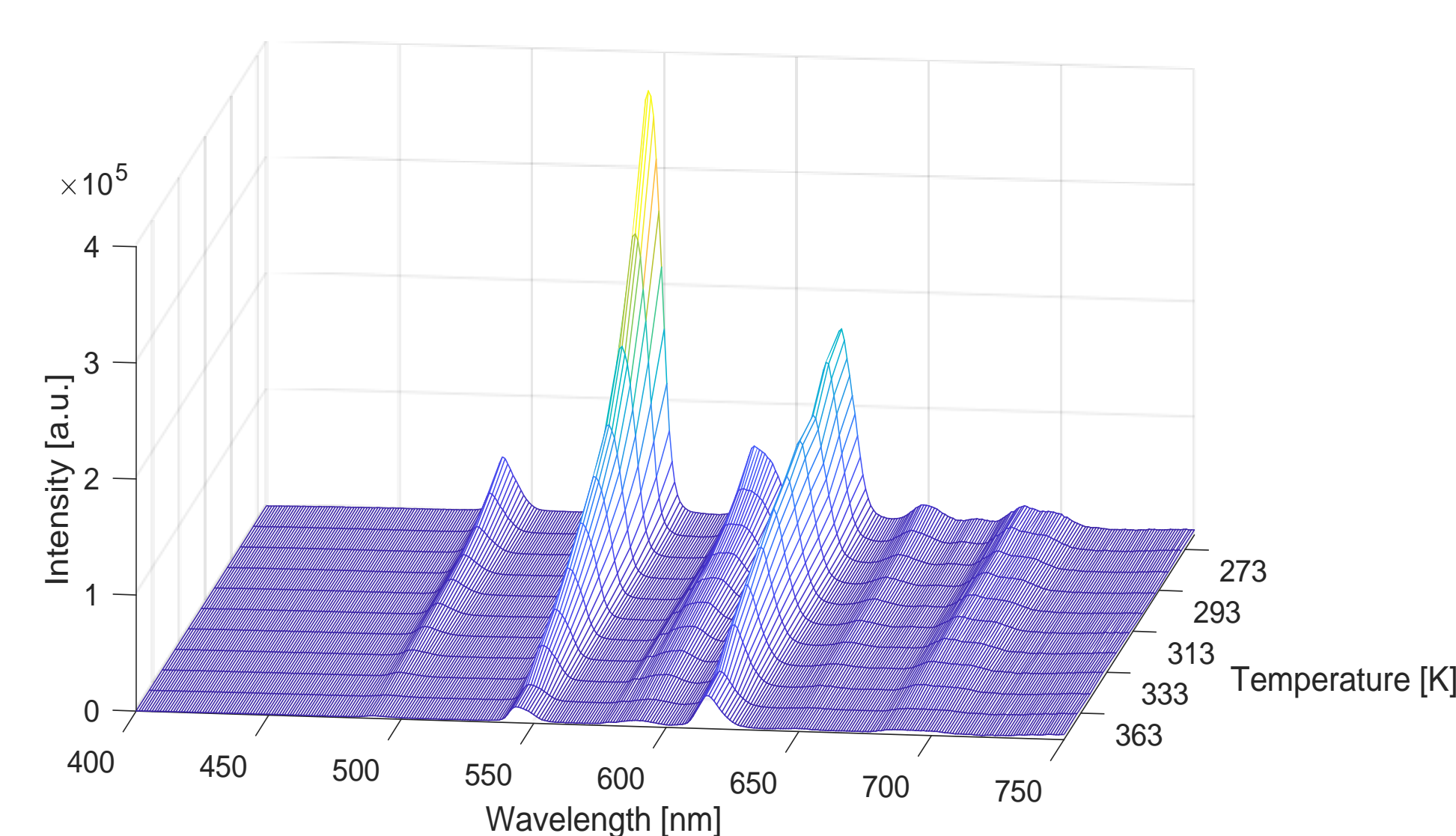
Reaction conditions: catalyst (10 mg), co-catalyst (DMAP, 1 mg, 8 × 10⁻³ mmol), epichlorohydrin (0.5 mmol), CO₂ (6 bar), CH₂Cl₂ (2 mL), time = 2 hours, 120 °C.

Eu,Tb@Pic@PMO:

- physiological temperature sensor
- T range (K): 273-373
- Max S_r: 2,11 (273 K)

Yb@Porph@PMO:

- characteristic, intense Yb³⁺ emission
- exciting in tissue-penetrating window (650-900 nm) possible



These results have been published in:
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Scan the QR code for the full paper!

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