Late-stage introduction of sulfonamide into electron-rich aromatics

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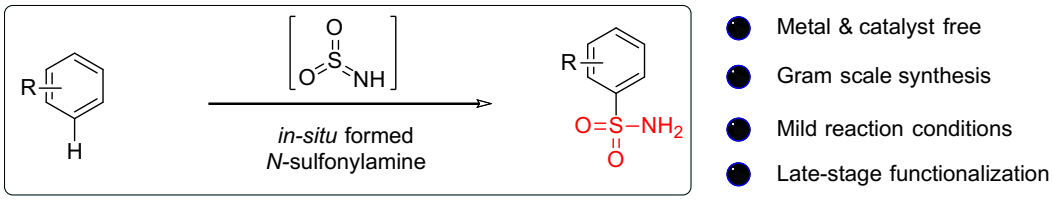
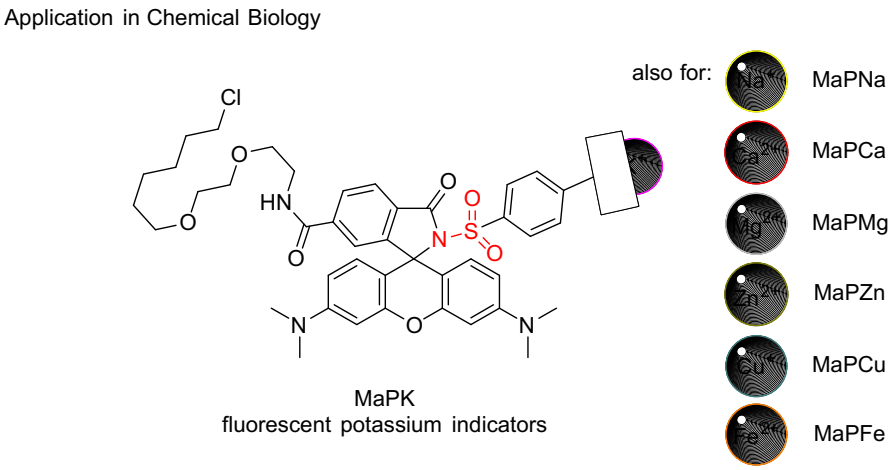
We present a direct and practical method for synthesizing of arylsulfonamides from electron-rich aromatic compounds using *in-situ* generated *N*-sulfonylamine as electrophilic sulfonylating reagents. The reaction accommodates a broad substrate scope, including aniline derivatives, indoles, pyrroles, furans and styrenes. It proceeds under mild conditions and tolerates a wide range of sensitive functional groups such as alkyne, acetate, trifluoromethoxy group or acetoxymethyl ester (AM ester). The utility of this transformation is demonstrated through the efficient construction of metal-ion sensors and fluorogenic dyes, underscoring its potential for molecular probe and chemical biology applications.





[1] M.-M. Wang, K. Johnsson, *Chem. Sci.*, **2024**, *15*, 12310-12315.
[2] M.-M. Wang, D.-e. Sun, K. Johnsson, **2025**, manuscript submitted, preprint available on bioRxiv: https://doi.org/10.64898/2025.12.05.692539.