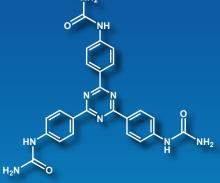




# Diurea Linkers for the Synthesis of Reconstructed COFs

$$\bigcup_{\mathsf{H}_2\mathsf{N}} \bigvee_{\mathsf{H}}^{\mathsf{H}} \bigvee_{\mathsf{O}}^{\mathsf{N}\mathsf{H}_2}$$

$$\bigcup_{\mathsf{H}_2\mathsf{N}} \bigcap_{\mathsf{H}} \mathsf{N} \bigcup_{\mathsf{H}} \mathsf{N} \mathsf{H}_2$$



1,1'-(1,4-Phenylene)diurea 1g / 5g

1,1'-(4,4'-Biphenylylene)diurea 1g / 5g

1,1',1"-(1,3,5-Triazine-2,4,6triyltri-4,1-phenylene)triurea

These diurea and triurea derivatives are useful for the synthesis of covalent organic structures (COFs) consisted of urea bonds.<sup>1)</sup> In addition, reconstruction of β-ketoenamine COFs is enabled by hydrolysis of urea-based COFs and subsequent imine condensation. Synthesis of COFs with high crystallinity and porosity has been reported by this method.<sup>2)</sup>

### Application: Synthesis of highly crystalline COFs via "reconstruction" 2)

References 1) O. M. Yaghi et al., J. Am. Chem. Soc. 2018, 140, 16438. https://doi.org/10.1021/jacs.8b10612 2) A. I. Cooper et al., Nature 2022, 604, 72. https://doi.org/10.1038/s41586-022-04443-4

#### **Related Products**

**2,4,6-Triformylphloroglucinol** (=Tp, TPG, TFP) 2,4-Dihydroxybenzene-1,3,5-tricarbaldehyde 2,5-Dihydroxyterephthalaldehyde

200mg / 1g [T3688] 1g / 5g [D6046] 1g / 5g [D5510]

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E-mail: Sales-IN@TCIchemicals.com

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