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**Fundamental questions
Elemental answers**



Showcasing research from Professor Hounk Kang, Jin Yeong Kim, and Min Kim's laboratory, Chungbuk National University and Seoul National University, Republic of Korea.

TEMPO-immobilized metal-organic frameworks for efficient oxidative coupling of 2-aminophenols and aldehydes to benzoxazoles

TEMPO radical-immobilized, Zr-based metal-organic frameworks (MOFs) have been utilized as highly efficient heterogeneous catalysts for the oxidative coupling of 2-aminophenols and aldehydes, leading to the formation of corresponding benzoxazoles. Additionally, these catalysts were successfully employed in the sequential connection with the aerobic oxidation of alcohols to aldehydes. The TEMPO-MOF system exhibited a broad spectrum of functional group tolerances during benzoxazole synthesis, and Zr-based TEMPO-MOFs demonstrated excellent usability under oxidative conditions.

As featured in:



See Hounk Kang, Jin Yeong Kim, Min Kim *et al.*, *CrystEngComm*, 2024, **26**, 120.