A Heterogeneous Palladium Catalyst for C2-Selective Arylation of Indoles

**Significance:** Pd\(^{0}\)-AmP-MCF constitutes of silica-based mesocellular foam (MCF) functionalized with aminopropylsilane (for the preparation, see: M. Shakeri et al. *Chem. Eur. J.* 2011, 17, 13269). Pd\(^{0}\)-AmP-MCF (palladium particles ø: 2–3 nm) catalyzed the C2-selective arylation of indoles \(1\) and substituted diaryliodonium tetrafluoroborates \(2\) to give the corresponding indole derivatives in 65–99% yield (15 examples).

**Comment:** The reactions of an electron-rich indole (\(3b\)), an N-methylated indole (\(3d\)), para-alkyl-substituted salts (\(3f,g\)), or an electron-deficient CF\(_3\)-substituted salt (\(3j\)) afforded high yields, whereas an N-benzylated indole (\(3e\)) or a naphthyl salt (\(3i\)) resulted in lower yield. ICP-OES analysis showed 0.6 ppm of palladium leaching from the reaction mixture (\(3a\)).