A Heterogeneous Palladium Catalyst for C2-Selective Arylation of Indoles


**Comment:** The reactions of an electron-rich indole (3b), an N-methylated indole (3d), para-alkyl-substituted salts (3f,g), or an electron-deficient CF₃-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).

**Selected results:**

- **3a** \( R¹ = H, R² = H, Ar = Ph \) r.t., 6 h, 91% yield
- **3b** \( R¹ = MeO, R² = H, Ar = Ph \) 40 °C, 6 h, 86% yield
- **3c** \( R¹ = NO₂, R² = H, Ar = Ph \) 50 °C, 25 h, 70% yield
- **3d** \( R¹ = H, R² = Me, Ar = Ph \) r.t., 6 h, 80% yield
- **3e** \( R¹ = H, R² = MeC₆H₅, Ar = Ph \) 50 °C, 24 h, 65% yield
- **3f** \( R¹ = H, R² = H, Ar = 4-MeC₆H₄ \) 40 °C, 6 h, 83% yield
- **3g** \( R¹ = H, R² = H, Ar = 4-t-BuC₆H₄ \) 50 °C, 25 h, 84% yield
- **3h** \( R¹ = H, R² = H, Ar = 2-MeC₆H₄ \) 50 °C, 6 h, 76% yield
- **3i** \( R¹ = H, R² = H, Ar = Np \) 40 °C, 15 h, 67% yield
- **3j** \( R¹ = H, R² = Me, Ar = 4-F₃CC₆H₄ \) 40 °C, 15 h, 99% yield
- **3k** \( R¹ = H, R² = Me, Ar = 4-MeOC₆H₄ \) 40 °C, 6 h, 72% yield

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