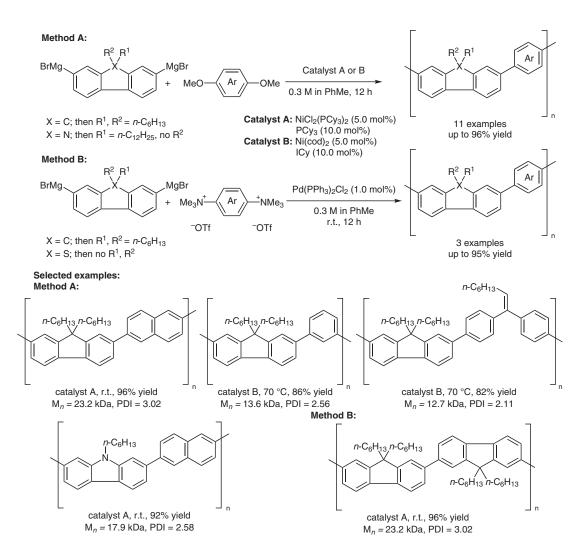
Z.-K. YANG, N.-X. XU, R. TAKITA, A. MURANAKA, C. WANG\*, M. UCHIYAMA\* (THE UNIVERSITY OF TOKYO, JAPAN)

Cross-Coupling Polycondensation via C-O or C-N Bond Cleavage

Nat. Commun. 2018, 9, 1587.

## Nickel- or Palladium-Catalyzed Cross-**Coupling Polycondensation**



Significance: The authors describe a cross-coupling polycondensation of Grignard reagents and various aromatic ethers or ammoniums salts to form  $\pi$ -conjugated polymers with high molecular weight through C-O or C-N bond cleavage. The reaction proceeds under mild conditions in the presence of commercially available Ni or Pd catalysts.

conditions showed that the quality and purity of the organometallic compound critically influenced the yield and reactivity of this polycondensation. In the presence of mono-Grignard reagents, the chain-growth was terminated and the molecular weight was reduced.

SYNFACTS Contributors: Paul Knochel, Dorothée Ziegler Synfacts 2018, 14(07), 0735 Published online: 18.06.2018 DOI: 10.1055/s-0037-1610104; Reg-No.: P07518SF

Category

**Metal-Mediated Synthesis** 

**Key words** 

magnesium nickel catalysis cross-coupling



**Comment:** Interestingly, the optimized reaction