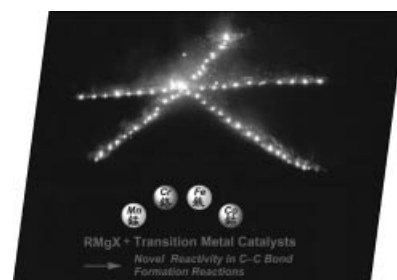


## COVER PICTURE

The cover picture shows a concept that the combination of a Grignard reagent (RMgX) with various transition metal catalysts opens up an opportunity to explore new reactions for carbon–carbon bond formation. Grignard reagents are the most classical organometallics and useful compounds in organic synthesis. The addition of transition metal salts to this classic reagent gives novel reaction patterns such as carbometallation, rearrangement, electron transfer, cross-coupling, and so forth. Manganese-, chromium-, iron-, and cobalt-catalyzed carbon–carbon bond formation reactions with Grignard reagents are discussed in the Microreview by H. Shinokubo and K. Oshima on p. 2081 ff.



## MICROREVIEWS

### Contents

### 2081 H. Shinokubo,\* K. Oshima\*

Transition Metal-Catalyzed Carbon–Carbon  
 Bond Formation with Grignard Reagents –  
 Novel Reactions with a Classic Reagent

**Keywords:** Chromium / Cobalt / Grignard reagent /  
 Iron / Manganese

RMgX  $\longrightarrow$  C–C Bond Formation  
*Mn, Cr, Fe, Co catalysts*