

A Journal of the Gesellschaft Deutscher Chemiker

Angewandte Chemie

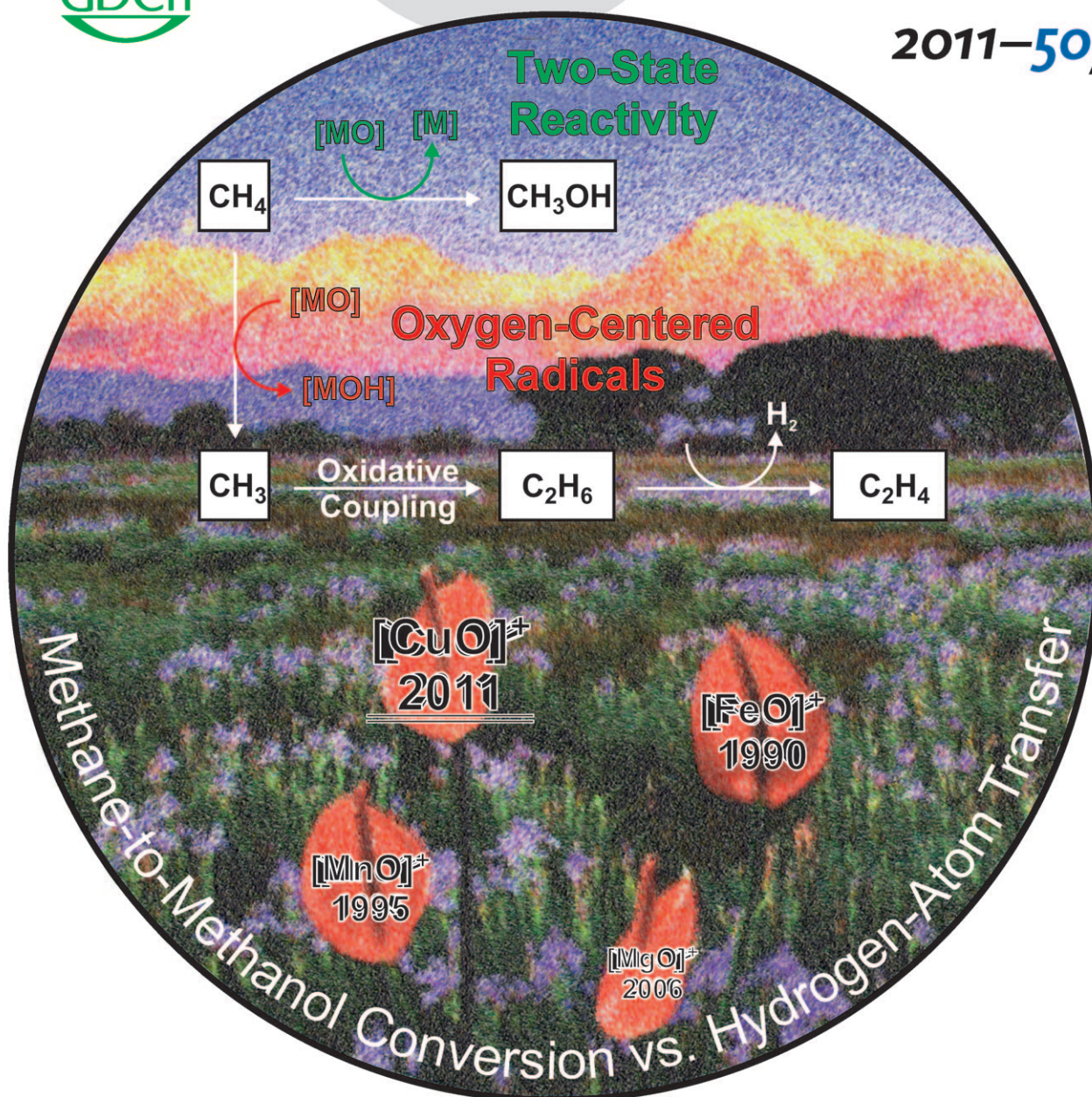
50
YEARS

International Edition



www.angewandte.org

2011–50/21



The final puzzle piece ...

... of the first-row transition-metal oxides has been found. In their Communication on page 4966 ff., H. Schwarz et al. describe how more than ten years after its theoretical prediction to serve as a powerful methane \rightarrow methanol converter, the bare $[\text{CuO}]^+$ cation has been successfully generated in the gas phase. The crucial role of two-state reactivity and the importance of oxygen-centered radicals for selectivity in the oxidation of methane have been revealed by a combination of mass spectrometry and DFT calculations.

WILEY-VCH

Back Cover

**Nicolas Dietl, Christian van der Linde, Maria Schlangen,
Martin K. Beyer, and Helmut Schwarz***

The final puzzle piece of the first-row transition-metal oxides has been found. In their Communication on page 4966 ff., H. Schwarz et al. describe how more than ten years after its theoretical prediction to serve as a powerful methane→methanol converter, the bare $[\text{CuO}]^+$ cation has been successfully generated in the gas phase. The crucial role of two-state reactivity and the importance of oxygen-centered radicals for selectivity in the oxidation of methane have been revealed by a combination of mass spectrometry and DFT calculations.

