

A Journal of the Gesellschaft Deutscher Chemiker

Angewandte Chemie

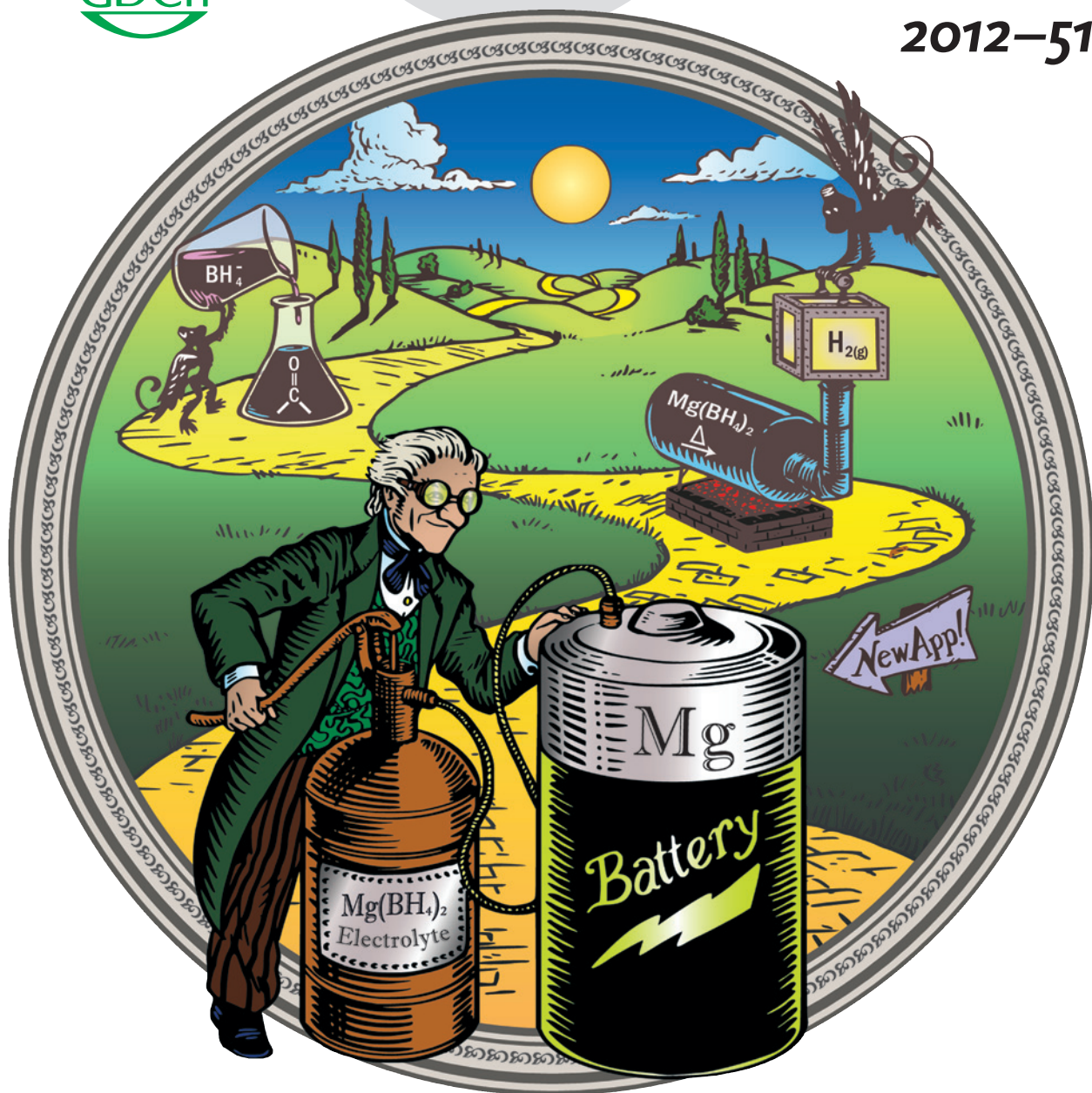
International Edition

D 3461



www.angewandte.org

2012–51/39



Primary Amine Catalysis

Review by P. Melchiorre

Water Splitting

Minireview by D. G. H. Hetterscheid and J. N. H. Reek

Highlights: Dienamine Catalysis • Molecular Electronics

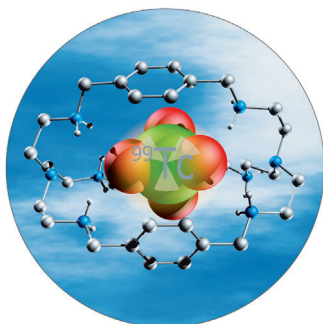
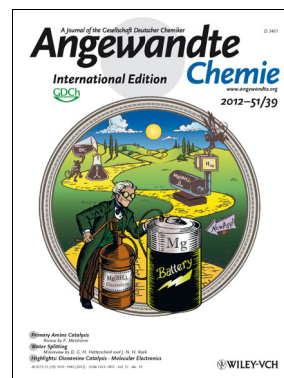
ACIEFS 51 (39) 9701–9942 (2012) • ISSN 1433–7851 • Vol. 51 • No. 39

WILEY-VCH

Cover Picture

Rana Mohtadi,* Masaki Matsui, Timothy S. Arthur, and Son-Jong Hwang

Reversible electrochemical magnesium deposition and stripping from a $\text{Mg}(\text{BH}_4)_2$ electrolyte is reported by R. Mohtadi and co-workers in their Communication on page 9780 ff. High coulombic efficiency of up to 94 % was achieved. This $\text{Mg}(\text{BH}_4)_2$ electrolyte was used in the first rechargeable magnesium battery utilizing a borohydride.

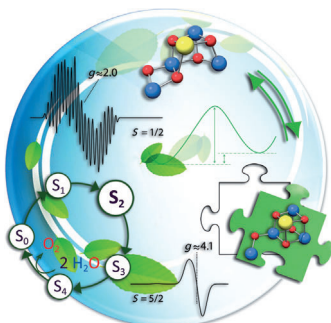
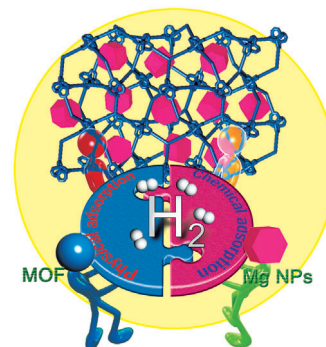


Caged Pertechnetate

In their Communication on page 9772 ff., V. Amendola et al. present the first evidence of pertechnetate binding by a molecular receptor. Selective recognition of $^{99}\text{TcO}_4^-$ in aqueous solution is demonstrated by NMR spectroscopy and calorimetric studies.

Hydrogen Storage

A metal–organic framework with hexagonal-disk-shaped Mg nanocrystals adsorbs H_2 by physi- and chemisorption. In their Communication on page 9814 ff, M. P. Suh et al. report on the synergistic effects of these processes.



Photosystem II

In their Communication on page 9935 ff., D. A. Pantazis, F. Neese et al. show that the core of the photosynthetic oxygen-evolving complex exists in two interconvertible structures with distinct spectroscopic properties.