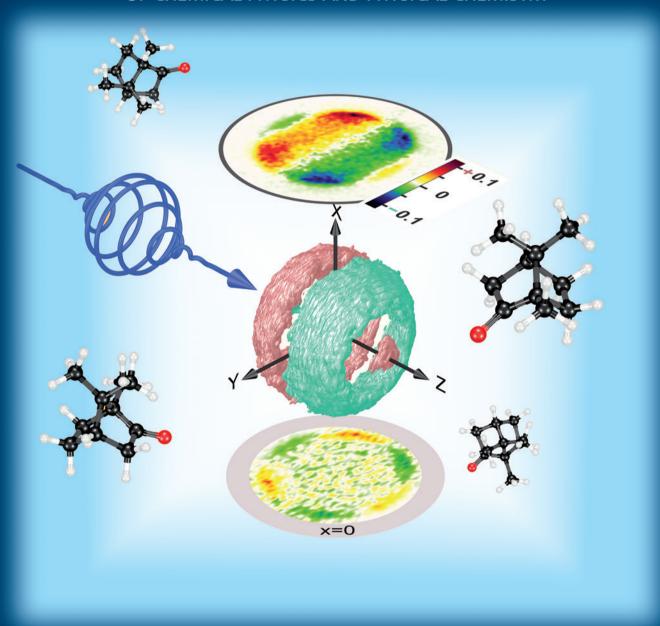
A EUROPEAN JOURNAL

CHEMPHYSCHEM

OF CHEMICAL PHYSICS AND PHYSICAL CHEMISTRY



1/2015

A Journal of



Reviews: Transport Phenomena in Nanoporous Materials (J. Kärger) **Minireviews:** Dye-Sensitized Solar Cell Counter Electrodes Based on Carbon Nanotubes (H. Jeong et al.), Responsive Aqueous Foams (A.-L. Fameau, R. von Klitzing, et al.)

Concepts: Dark-Field-Based Observation of Single-Nanoparticle Dynamics on a Supported Lipid Bilayer (J.-M. Nam et al.)

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Cover Picture

Christian Lux, Matthias Wollenhaupt, Cristian Sarpe, and Thomas Baumert*

Photoelectron circular dichroism (PECD) from images of three-dimensional photoelectron angular distributions are described in detail by T. Baumert et al. on p. 115. PECD results from resonance enhanced multiphoton ionization of randomly oriented chiral molecules in the gas phase, where a table-top femtosecond laser system is used as a light source. The PECD effect is orders of magnitude stronger than conventional circular dichroism. This analysis of the physical mechanism highlights the role of the intermediate resonances for the PECD. Quantitative measures are derived for the multiphoton PECD to develop this technique into a versatile tool for research and analytics of chiral molecular systems. Applications range from the determination of enantiomeric excess on highly dilute gas-phase samples to additional routes to determine the absolute configuration.

