Ammonia coordination introducing a magnetic moment in an on-surface low-spin porphyrin.

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 3394980
Author(s) Wäckerlin, Christian; Tarafder, Kartick; Girovsky, Jan; Nowakowski, Jan; Hählen, Tatjana; Shchyrba, Aneliia; Siewert, Dorota; Kleibert, Armin; Nolting, Frithjof; Oppeneer, Peter M; Jung, Thomas A; Ballav, Nirmalya
Author(s) at UniBasel Jung, Thomas ;
Year 2013
Title Ammonia coordination introducing a magnetic moment in an on-surface low-spin porphyrin.
Journal Angewandte Chemie International Edition
Volume 52
Number 17
Pages / **Article-Number** 4568-71
Amazing ammonia: The molecular spin state of Ni(II) porphyrin, supported on a ferromagnetic Co surface, can be reversibly switched between spin-off (S = 0) and spin-on (S = 1) states upon coordination and decoordination of the gaseous ligand NH3, respectively (see picture). This finding clearly indicates the possible use of the system as a single-molecule-based magnetochemical sensor and in spintronics.
Publisher Wiley
ISSN/ISBN 1433-7851 ; 1521-3773
edoc-URL http://edoc.unibas.ch/43472/
Full Text on edoc Available;
Digital Object Identifier DOI 10.1002/anie.201208028
PubMed ID http://www.ncbi.nlm.nih.gov/pubmed/23512489
ISI-Number WOS:000318043600009
Document type (ISI) Journal Article