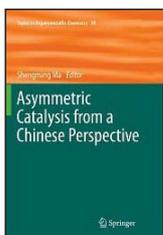


# Publications in Brief

## BOOKS

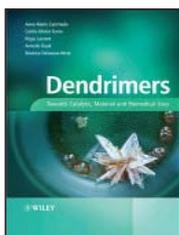
### “Asymmetric Catalysis from a Chinese Perspective”



Edited by S. Ma (Shanghai Institute of Organic Chemistry, State Key Laboratory of Organometallic Chemistry and Department of Chemistry, East China Normal University, China), Topics in Organometallic Chemistry, Vol. 36, Springer-Verlag, Berlin, Heidelberg, Germany, 2011, 359 pages, ISBN: 978-3-642-19471-9, £206.50, €245.03, US\$309.00

In 1995, a review in Chinese was published to introduce the importance and the current state of the art of chiral technology. The National Natural Science Foundation of China started to actively support research in this area. From 2000, the Ministry of Science and Technology also started to support such research. Chinese researchers have been making notable achievements in this area by developing alternative effective new chiral ligands for established enantioselective transformations, as well as new catalytic enantioselective reactions with known or new ligands. Chinese chemists were invited to write an account on their own contribution in this area by briefly touching on the background for the contribution from chemists outside China.

### “Dendrimers: Towards Catalytic, Material and Biomedical Uses”

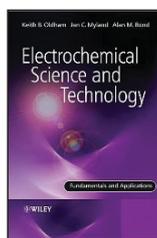


Edited by A.-M. Caminade, C.-O. Turrin, R. Laurent, A. Ouali and B. Delavaux-Nicot (Laboratoire de Chimie de Coordination du CNRS, Toulouse, France), John Wiley & Sons, Chichester, UK, 2011, 566 pages, ISBN: 978-0-470-74881-7, £120.00, €144.00, US\$190.00

This book covers the properties and uses of dendrimers and dendrons.

The aim of this book is to be the reference book about dendrimers applications. It is divided in four main parts: Part 1: Generalities, Syntheses, Characterizations and Properties; Part 2: Applications in Catalysis; Part 3: Applications for the Elaboration or Modification of Materials; and Part 4: Applications in Biology/Medicine. Platinum group metal complexes are involved in catalytic applications, biological sensors, chemical sensors and luminescent dendrimers.

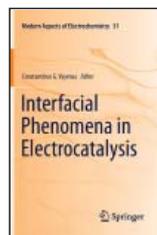
### “Electrochemical Science and Technology: Fundamentals and Applications”



By K. B. Oldham and J. C. Myland (Trent University, Canada) and A. M. Bond (Monash University, Australia), John Wiley & Sons, Chichester, UK, 2012, 424 pages, ISBN: 978-0-470-71084-5 (paperback), £44.95, €54.00, US\$65.00

This book addresses the scientific principles underlying electrochemistry. It could serve as a text for a course in electrochemistry at a university or college. To keep the size and cost of the book reasonable, much of the more tangential material is available as ‘Webs’: documents devoted to a single topic that are freely accessible from the publisher’s Student Companion Site at: <http://www.wiley.com/go/EST>. Topics include fuel cells, electrodes, corrosion protection and pollution control, among many others.

### “Interfacial Phenomena in Electrocatalysis”



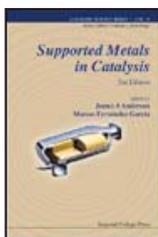
Edited by C. G. Vayenas (University of Patras, Greece), Modern Aspects of Electrochemistry, Vol. 51, Springer Science+Business Media, LLC, New York, USA, 2011, 373 pages, ISBN: 978-1-4419-5579-1, £126.00, €149.75, US\$189.00

This is claimed to be the first and only volume to cover interfacial electrochemistry, as opposed to other facets of interfacial science. Contributors are international leaders in their area of expertise.

Topics include:

- Temperature Effects on Platinum Single-Crystal/Aqueous Solution Interphases. Combining Gibbs Thermodynamics with Laser-Pulsed Experiments;
- Surface Thermodynamics of Metal/Solution Interface: the Untapped Resources;
- XAS Investigations of PEM Fuel Cells;
- Palladium-Based Electrocatalysts for Alcohol Oxidation in Direct Alcohol Fuel Cells;
- Structure and Reactivity of Transition Metal Chalcogenides Toward the Molecular Oxygen Reduction Reaction;
- Materials, Proton Conductivity and Electrocatalysis in High-Temperature PEM Fuel Cells.

### “Supported Metals in Catalysis”, 2nd Edition

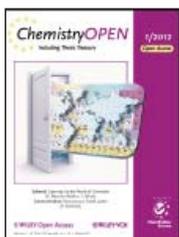


Edited by J. A. Anderson (University of Aberdeen, UK) and M. Fernández García (Instituto de Catálisis y Petroleoquímica, (CSIC), Spain), Catalytic Science Series, Vol. 11, Imperial College Press, London, UK, 2011, 580 pages, ISBN: 978-1-84816-677-6, £111.00, US\$168.00

The second edition of “Supported Metals in Catalysis” has new and updated chapters containing summaries of research in this rapidly evolving field. Chapters of interest include: ‘Supported Metal Catalysts for Fine Chemicals Synthesis’, ‘Supported Metals in the Production of Hydrogen’, ‘Supported Metals for Application in Fuel Cells’ and ‘Supported Metals in Vehicle Emission Control’.

## JOURNALS

### ChemistryOpen

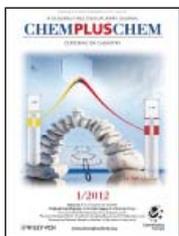


Editors: K. Hindson and H. Ross; Deputy Editor: N. Ortúzar; Wiley-VCH and ChemPubSoc Europe; E-ISSN: 2191-1363

Wiley-VCH and ChemPubSoc Europe, an association of sixteen chemical societies, have launched *ChemistryOpen*, the first open access chemical society journal.

*ChemistryOpen* will publish peer-reviewed primary research in all areas of chemistry, and will thus satisfy funding organisations and institutes which require that the research funded by them should be accessible to all. As an additional feature, short summaries of PhD theses with a link to the full version will be published. This Thesis Treasury will make PhD theses in chemistry readily accessible while linking them through CrossRef to all cited journal articles in the programme.

### ChemPlusChem



Editor: N. A. Compton; Deputy Editor: M. Spiniello; Wiley-VCH and ChemPubSoc Europe; E-ISSN: 2192-6506

Wiley-VCH and ChemPubSoc Europe have launched *ChemPlusChem*. Original papers published will cover at least two different aspects (subfields) of chemistry or one of chemistry and one of another scientific discipline. *ChemPlusChem* succeeded

the *Collection of Czechoslovak Chemical Communications* which ceased publication at the end of 2011. Editorial Board Co-Chairman Michal Hocek explained: “Research in chemical and molecular sciences is becoming more and more complex and inter- and multidisciplinary and also its impact in physical, biological and material sciences is rapidly growing. Typically nowadays projects involve synthesis of compounds, catalysis, spectroscopy, crystallography, biological evaluations, physical measurements, and/or material studies”.

### Integrating Materials and Manufacturing Innovation



Editor: C. Ward; The Minerals, Metals & Materials Society (TMS) and Springer; ISSN: 2193-9764; e-ISSN: 2193-9772

*Integrating Materials and Manufacturing Innovation (IMMI)* is a new open access journal supporting the discovery, development, and application of materials, materials systems, and materials processes

for practical use in manufacturing. *IMMI* covers innovations from the discovery of materials to their deployment.

### Special Issue: Celebrating the 150th Anniversary of the Department of Chemistry, The University of Tokyo



*Chem. Asian J.*, 2011, 6, (7), 1629–1895

The Department of Chemistry of The University of Tokyo, Japan, celebrated its 150th anniversary in 2011. To commemorate this occasion and to honour the department’s tradition of excellence, this special issue featuring contributions from international scientists closely linked with the department was dedicated to this anniversary. The cover picture, provided by the issue co-organisers, Professors Shu Kobayashi and Eiichi Nakamura, captures the history and the many faces of the department. Items of interest include: ‘New Design Tactics in OLEDs Using Functionalized 2-Phenylpyridine-Type Cyclometalates of Iridium(III) and Platinum(II)’, ‘One-Pot Nitrile Aldolization/Hydration Operation Giving  $\beta$ -Hydroxy Carboxamides’ and ‘Platinum–Acetylide Polymers with Higher Dimensionality for Organic Solar Cells’.

### Themed Issue: Heterogeneous Catalysis for Fine Chemicals



*Catal. Sci. Technol.*, 2011, **1**, (9), 1533–1696

Mario Pagliaro (Istituto per lo studio dei materiali nanostrutturati, CNR, Palermo, Italy) and Graham Hutchings (Cardiff University, UK) introduce this themed issue. Today, in addition to the original rhodium homogeneous catalysts, there are

a number of commercial fine chemicals production processes using highly efficient and selective solid catalysts. To celebrate the contribution of Professor Michele Rossi to this field on the occasion of his 70th birthday, this themed issue aims to “grasp the current momentum in heterogeneous catalytic chemistry for fine chemicals”. Palladium with interstitial carbon atoms is shown to be an ultrasensitive hydrogenation catalyst. Other contributions demonstrate how to discriminate between homogeneous or heterogeneous nano-catalysis in the conjugate addition of arylboronic acids mediated by palladium(II) complexes; how the selective hydrogenation of functionalised nitroarenes can be carried out under ultra-mild conditions; and how ruthenium-modification of gold catalysts enhances the selective oxidation of aliphatic alcohols.

metals included in the database are Ag, Au, Co, Cu, Fe, Ir, Mo, Ni, Pd, Pt, Re, Rh, Ru, Sc and V.

Find this at: <http://suncat.stanford.edu/catapp/>

### Materials Project



Researchers from the Department of Energy's Lawrence Berkeley National Laboratory and the Massachusetts Institute of Technology, USA, jointly launched the Materials Project, which is a search engine for material properties. With the Materials Project, researchers can use supercomputers to characterise properties of inorganic compounds, including their stability, voltage, capacity and oxidation state, which had previously not been possible. The results are then organised into a database.

Find this at: <http://www.materialsproject.org/>

## ON THE WEB

### CatApp

CatApp is a web application, from SUNCAT Center for Interface Science and Catalysis, SLAC National Accelerator Laboratory, Menlo Park and Department of Chemical Engineering, Stanford University, California, USA, for looking up calculated reaction and activation energies for elementary reactions occurring on metal surfaces. The database includes reaction energies for all surface reactions that involve C–C, C–H, C–O, O–O, O–H, N–N, C–N, O–N,

N–H splitting for molecules with up to three C, N, or O atoms on close-packed fcc(111), hcp(0001), and bcc(110) surfaces, as well as stepped fcc and hcp surfaces. The



*Details of catalytic reactions, such as methanol decomposition on copper (shown in this smart phone display), can be accessed via CatApp from mobile devices. Copyright: Jens S. Hummelshøj/Stanford University*