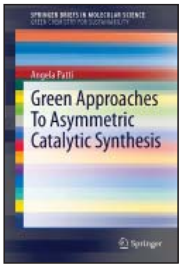
Publications in Brief

BOOKS

"Green Approaches to Asymmetric Catalytic Synthesis"

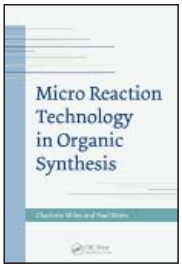


By A. Patti (National Research Council of Italy, Institute of Biomolecular Chemistry, Catania, Italy), Series: SpringerBriefs in Molecular Science, Subseries: SpringerBriefs in Green Chemistry for Sustainability, Springer, Dordrecht, The Netherlands, 2011, 140 pages, ISBN: 978-94-007-1453-3, £44.99, €49.95, US$49.95

The importance of chirality in molecular recognition processes and the biological activity of many chiral pharmaceutical drugs and agrochemicals is well accepted. There is a need for new synthetic methods leading to single or enriched enantiomers. This book describes the development of "greener" asymmetric reactions which preserve stereoselectivity. The topics covered are as follows:

(a) The search for alternative catalysts;
(b) Alternative solvents;
(c) Alternative synthetic strategies and processes.

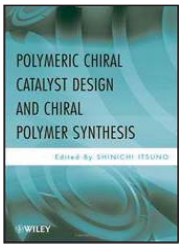
"Micro Reaction Technology in Organic Synthesis"



By C. Wiles (Chemtrix BV, The Netherlands) and P. Watts (The University of Hull, UK), CRC Press, Boca Raton, Florida, USA, 2011, 453 pages, ISBN: 978-1-4398-2471-9, £89.00

Though continuous processes have found widespread application within chemical production, the advantages associated with these have not always been acknowledged. Chemists still favour batch reactions. With the range of commercially available flow reaction platforms now available, it is the aim of this book to highlight the current state of the technology in order to encourage more synthetic chemists to start flow chemistry research programmes; facilitating the identification of novel and interesting synthetic methodologies that possess the potential to be scaled to production.

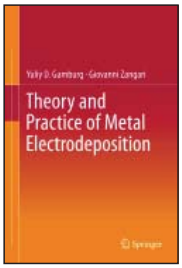
"Polymeric Chiral Catalyst Design and Chiral Polymer Synthesis"



Edited by S. Itsuno (Toyohashi University of Technology, Japan), John Wiley & Sons, Hoboken, New Jersey, USA, 2011, 528 pages, ISBN: 978-0-470-56820-0, £100.00, €120.00, US$149.95

This book reviews chiral polymer synthesis and its application to asymmetric catalysis. It features the design and use of polymer-immobilised catalysts and methods for their design and synthesis. It collects recent advances in this important field of polymer and organic chemistry.

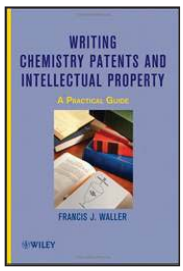
"Theory and Practice of Metal Electrodeposition"



Y. D. Gamburg (Russian Academy of Sciences, A. N. Frumkin Institute of Physical Chemistry and Electrochemistry, Moscow, Russia) and G. Zangari (University of Virginia, Department of Materials Science and Engineering, Charlottesville, Virginia, USA), Springer, New York, USA, 2011, 378 pages, ISBN: 978-1-4419-9668-8, £117.00, €139.05, US$179.00

The theory covered in this book largely focuses on the electrochemistry of metals. Details on the practice discuss the selection and use of metal coatings, the technology of deposition of metals and alloys, including individual peculiarities, properties and structure of coatings, control and investigations. Relevant chapters for pgm deposition include: 'Technologies for the Electrodeposition of Metals and Alloys' and 'Technologies for the Electrodeposition of Metals and Alloys: Electrolytes and Processes'.

"Writing Chemistry Patents and Intellectual Property: A Practical Guide"



F. J. Waller (USA), John Wiley & Sons, Hoboken, New Jersey, USA, 2011, 256 pages, ISBN: 978-0-470-49740-1, £53.50, €64.20, US$79.95

Based on a short course Dr Francis Waller gives for the American Chemical Society, the book teaches how to structure a literature search, to educate the patent examiner on your work, to prepare an application that can be easily duplicated, and to understand what goes on during

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the patent examining process. The book provides applicable examples.

JOURNALS

Current Opinion in Chemical Engineering

Editor-in-Chief: K. K. Sirkar (Department of Chemical Engineering, New Jersey Institute of Technology, USA); Elsevier; ISSN: 2211-3398

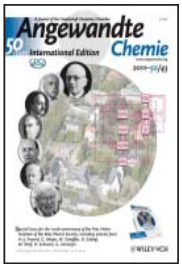
A new journal in the Current Opinion Series, *Current Opinion in Chemical Engineering* will be commissioning short and focused review articles written by experts on current advances in chemical engineering. It will initially consist of four issues per year covering the following eight sections, each of which is reviewed once a year: nanotechnology; energy and environmental engineering; biotechnology and bioprocess engineering; biological engineering; separation engineering; materials engineering; process systems engineering; and reaction engineering and catalysis.

Light: Science & Applications

Editor-in-Chief: J. Cao (Ministry of Science and Technology of China, China); Nature Publishing Group and Changchun Institute of Optics, Fine Mechanics and Physics; ISSN: 2047-7538

Nature Publishing Group is to introduce a new open access journal focusing on research in optics and photonics. *Light: Science & Applications* (*LSA*) seeks to promote research from all aspects of optics and photonics, including basic, applied and engineering research and applications. *LSA* will publish new research and reviews in cutting-edge and emerging areas.

Special Issue: 100th Anniversary of the Fritz Haber Institue of the Max Planck Society



Angew. Chem. Int. Ed., 2011, **50**, (43), 9993–10254

This special issue to mark the 100th anniversary of the Fritz Haber Institue (FHI) and dedicated to Professor Gerhard Ertl on the occasion of his 75th birthday contains essays outlining the history of the FHI, and an account of Fritz Haber's career. Other specially commissioned articles include a review on carbon monoxide oxidation as a prototypical reaction for heterogeneous processes co-authored by the Directors of the FHI: Hans-Joachim Freund, Gerard Meijer, Matthias Scheffler, Robert Schlögl and Martin Wolf. Articles involving pgms include: 'High-Sensitivity Hydrogen Detection: Hydrogen-Induced Swelling of Multiple Cracked Palladium Films on Compliant Substrates', 'Role of Surface Iron in Enhanced Activity for the Oxygen Reduction Reaction on a $Pd_3Fe(111)$ Single-Crystal Alloy' and 'Titania-Supported Iridium Subnanoclusters as an Efficient Heterogeneous Catalyst for Direct Synthesis of Quinolines from Nitroarenes and Aliphatic Alcohols'.

Special Issue: Controlling Photophysical Properties of Metal Complexes: Towards Molecular Photonics

Coord. Chem. Rev., 2011, **255**, (21–22), 2399–2726

Photochemistry and photophysics is represented in a European collaboration programme COST Action D35 "From Molecules to Molecular Devices: Control of Electronic, Photonic, Magnetic and Spintronic Behaviour". This special issue includes invited articles and selected contributions presented at a COST meeting "Controlling photophysical properties of metal complexes: Toward molecular photonics" held on 17th–19th May 2010 at the J. Heyrovský Institute of Physical Chemistry in Prague, Czech Republic. An overview of the important role metal complexes play in molecular photonics was attempted. This is confirmed for Pt, Ir and Ru by a selection of contributions including: 'Light-Emitting Devices Based on Organometallic Platinum Complexes as Emitters', 'Sensory Luminescent Iridium(III) and Platinum(II) Complexes for Cation Recognition' and 'A Computational Approach to the Electronic and Optical Properties of Ru(II) and Ir(III) Polypyridyl Complexes: Applications to DSC, OLED and NLO'.

Themed Issue: Cross Coupling Reactions in Organic Synthesis

Chem. Soc. Rev., 2011, (10), 4877–5208

This themed issue covering various state-of-the-art palladium-catalysed cross-coupling reactions is devoted to the three chemistry Nobel Prize winners of 2010: Professors Richard F. Heck, Ei-ichi Negishi

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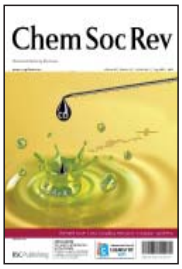

and Akira Suzuki. Based on their pioneering work, organic synthesis has been changed in recent decades and has become significantly more efficient. Guest editor Matthias Beller introduces this themed issue. Interesting items include: 'Cross-Coupling in Flow', 'Microwave-Assisted C–C Bond Forming Cross-Coupling Reactions: an Overview', 'Nanocatalysts for Suzuki Cross-Coupling Reactions', and '35 Years of Palladium-Catalyzed Cross-Coupling with Grignard Reagents: How Far Have We Come?'.

ON THE WEB

Hydrogen Storage Materials Database

The US Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) has launched a hydrogen storage materials database to collect and disseminate materials data and accelerate advanced materials research and development. The new database includes information from the DOE/IEA Hydpark databases, Hydrogen Storage Material Centers of Excellence, and the Fuel Cell Technologies Program. The database has hundreds of material property listings and references including properties such as synthesis conditions, sorption, release conditions and impurities formed during release reactions, etc.

Find this at: http://hydrogenmaterialssearch.govtools.us/search.aspx

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