“Chemical Information for Chemists: A Primer”
This book is aimed at practicing chemists. Written and edited by chemical information experts, it covers techniques in retrieving and evaluating chemical information using the unique entry points of the chemical literature, including structure, formula, substructure and sequence. Contents include:
(a) Introduction to the chemical literature;
(b) Using the primary literature: journals and impact; patents; conference papers, reports and abstracts;
(c) Searching by text;
(d) Physical properties;
(e) Structure and substructure searching;
(f) Reaction searching;
(g) Basic Markush searching for patent information;
(h) Polymers and information retrieval;
(i) Commercial availability, safety and hazards information.

“Computational Approaches to Energy Materials”
Edited by A. Walsh (Department of Chemistry, University of Bath, UK), A. A. Sokol and C. R. A. Catlow (Department of Chemistry, University College London, UK), John Wiley & Sons, Ltd, Chichester, West Sussex, UK, 2013, 318 pages, ISBN: 978-1-119-95093-6, £100.00, €125.20, US$185.00
This book is a detailed survey of the current computational techniques for the development and optimisation of energy materials. The review of techniques includes current methodologies based on electronic structure, interatomic potential and hybrid methods. Topics covered include:
(a) Introduction to computational methods and approaches;
(b) Modelling materials for energy generation applications: solar energy and nuclear energy;
(c) Modelling materials for storage applications: batteries and hydrogen;
(d) Modelling materials for energy conversion applications: fuel cells, heterogeneous catalysis and solid state lighting;
(e) Nanostructures for energy applications.

“Organometallics in Synthesis: Third Manual”

“Palladium-Catalyzed Coupling Reactions: Practical Aspects and Future Developments”
Edited by Á. Mónár (University of Szeged, Department of Organic Chemistry, Hungary), Wiley-VCH Verlag GmbH & Co KGaA, Weinheim, Germany, 2013, 692 pages, ISBN: 978-3-527-33254-0, £125.00, €150.00, US$190.00
While covering homogeneous and heterogeneous Pd-catalysed coupling reactions, the book focuses on key aspects such as using different reaction media, microwave techniques, catalyst recycling and large-scale applications. It provides comprehensive coverage of coupling reactions and emphasises those topics...
that show potential for further development, such as continuous flow systems, water as the reaction medium and catalyst immobilisation.

“Right First Time in Fine-Chemical Process Scale-Up”


Bringing a fine chemical product to plant and market quickly benefits from a “right first time in (fine-chemical) process scale-up”.

This book describes how to bridge the gap between scales avoiding scale-up problems. The author makes available 240 real-life examples and analyses them answering these questions: (a) what was the primary cause of the initial failure in scale-up; (b) what was the solution; and (c) how could the incident have been avoided in the early stages of process development?

Includes seven catalyst examples concerning palladium/carbon and one with rhodium.

JOURNALS

ACS Photonics

Editor: H. A. Atwater (Caltech, USA); ACS Publications

The new journal ACS Photonics will publish its first issue in January 2014. The aim is to meet the growing need for an interdisciplinary journal dedicated to high-impact research in the field of photonics. Published as soon as accepted and summarised in monthly issues, ACS Photonics will publish research articles, letters, perspectives and reviews, to encompass the full scope of published research in this field. Among the areas the journal will cover are LEDs and solid state lighting and photonics for energy materials.

MRS Energy & Sustainability—A Review Journal

Editors-in-Chief: D. S. Ginley (National Renewable Energy Laboratory, USA), D. Cahen, (Weizmann Institute of Science, Israel) and S. M. Benson (Stanford University, USA); Materials Research Society/Cambridge University Press; ISSN: 2329-2229; e-ISSN: 2329-2237

Published jointly by the Materials Research Society and Cambridge University Press, MRS Energy & Sustainability—A Review Journal will have reviews on key topics in materials science and development as they relate to energy and sustainability. Topics to be covered include research and development of both established and new areas; interdisciplinary systems integration; and objective application of economic, sociological and governmental models, enabling research and technological developments.

Nanoparticles for Catalysis

This special issue is a series of accounts by leading experts giving an overview of recent major developments in nanoparticles for catalysis. The most powerful synthetic methods and state-of-the-art characterisation techniques that have been utilised to control and analyse these nanoparticle-based catalysts are described. The guest editors hope that the reader can see the relationship between the structural details of the nanoparticles and their catalyst performance, while at the same time develop a fundamental understanding of the basic principles that dictate these relationships. Examples involving platinum and palladium nanoparticle-based catalysts are included.

Virtual Issue: Catalysis at the Shanghai Institute of Organic Chemistry

The Shanghai Institute of Organic Chemistry (SIOC), China, was founded in May 1950 as one of the first fifteen institutions established by the Chinese Academy of Sciences (CAS). This virtual issue of ACS Catalysis highlights the world-class catalysis research being
carried out at SIOC. The topics of catalysis research at SIOC are organometallic catalysis, organocatalysis, asymmetric catalysis and biocatalysis. Items of interest include: ‘Recent Advances in Asymmetric Catalysis in Flow’, ‘Palladium-Catalyzed C-C Triple Bond Cleavage: Efficient Synthesis of 4H-Benzo[d][1,3]oxazin-4-ones’ and ‘Enantioselective Intramolecular Carbene C–H Insertion Catalyzed by a Chiral Iridium(III) Complex of D4-Symmetric Porphyrin Ligand’.

**Web Themed Issue: Medicinal Inorganic Chemistry**

*Chem. Commun.*, 2013

This web themed issue of *Chem. Commun.* celebrates current achievements and future perspectives in the field of medicinal inorganic chemistry, including, but not limited to: metal-based diagnostics, metal-based therapeutics, mechanistic studies of metallotherapeutics, the role of metal ions and metal ion homeostasis in disease, chelation therapy, inhibitors of medically-relevant metalloproteins and metal ion sensing. The guest editors are Amy Barrios (University of Utah, Salt Lake City, USA), Seth Cohen (University of California, San Diego, USA) and Mi Hee Lim (University of Michigan, Ann Arbor, USA).

The feature article by Nicolas Barry and Peter Sadler (University of Warwick, UK) entitled ‘Exploration of the Medical Periodic Table: Towards New Targets’ provides an excellent overview. Drugs and therapies based on Pt, Pd, Rh, Ir and Ru are covered and the collection will be added to as more articles are published.

**ON THE WEB**

**How Can I Find Out What Research is Being Done on Uses of Iridium?**

This item has a movie that shows the progress in patent applications involving iridium over time from 1993 to the present day (August 2013).