The Authors

Duncan Macquarrie is a Royal Society University Research Fellow at the Clean Technology Centre, York University. His work involves the development of novel catalysts for clean synthetic applications and novel materials for applications based on the templated synthesis of organic-silica hybrid materials. He is Coordinator of Solids Network (MIS) and Associate Editor of Green Chemistry.

The Catalyst Technical Handbook

Johnson Matthey have published an informative 82-page brochure, "The Catalyst Technical Handbook", which covers the use of catalysts for chemical reactions important in industrial synthesis. The handbook recommends platinum group metal homogeneous, heterogeneous and FibreCat™ anchored homogeneous catalysts for each reaction type discussed. This allows the user to make informed decisions relevant to their individual circumstances. Advice on optimising the operating conditions is also included.

Sections cover hydrogenation, dehydrogenation, hydroformylation, carbonylation, decarbonylation, hydrosilylation, cross-coupling, cyclopropanation and carbone reactions, isomerisation, oligomerisation and polymerisation, selective oxidation, chiral catalysts, and also particulate catalysts.

The brochure has extensive information on typical reaction schemes, and advice on catalyst handling and services, such as recycling.

To obtain "The Catalyst Technical Handbook", "The Catalytic Reaction Guide" or a Catalyst Sample Kit, please contact Chemical Sales, First Floor - HQ Building, Johnson Matthey, Orchard Road, Royston, Herts SG8 5HE; Fax: +44 (0) 1763 253573; E-mail: chemicals@matthey.com; Internet: http://www.chemicals.matthey.com.

Acronyms Used

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AMPS</td>
<td>Aminopropylsilica</td>
</tr>
<tr>
<td>BINOL</td>
<td>1,1'-Bis-2-naphthol</td>
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<tr>
<td>BPPFA</td>
<td>[Bis(triphenylphosphine)ferrocenyl] acetate</td>
</tr>
<tr>
<td>BPPFMe</td>
<td>2-[Bis(1,1'-triphenylphosphino)ferrocenyl]-2-ethyl methylamine</td>
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<tr>
<td>BPPF0Ac</td>
<td>2-[Bis(1,1'-triphenylphosphino)ferrocenyl]-2-acetoxyethane</td>
</tr>
<tr>
<td>DCC</td>
<td>Dicyclohexyl carbodiimide</td>
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Battengel Gotov is doing postdoctoral work at the University of Cologne, Germany. His research interests include the synthesis of chiral ferrocene ligands, ligand anchorage to inorganic supports, their application in stereoselective palladium- and rhodium-catalysed reactions, and stereoselective synthesis on arenetricarbonylchromium complexes.

Štefan Toma is Professor of Chemistry at the Comenius University, Bratislava. His interests include organometallic chemistry, mainly ferrocene and arenetricarbonylchromium chemistry. He uses ionic liquids, ultrasound and microwave irradiation in organic synthesis.

The Catalytic Reaction Guide

The Catalytic Reaction Guide contains information on 106 reactions important in industrial chemical synthesis. After selecting the reaction of interest, the pointer within the sliding insert lines up with details of the recommended catalyst and reaction conditions. Comments about the reaction and suggestions for improvements are listed on the facing pages.

Details of hydrogenation, coupling, selective oxidation, dehydrogenation, hydroformylation, carbonylation, decarbonylation, hydrosilylation, and cyclopropanation reactions are given and suggestions for Johnson Matthey catalysts are made.

Catalyst Sample Kits

Johnson Matthey now has sample kits available for the following reactions types:

1. Cross-coupling
2. Selective oxidation: alcohols to carbonyls
3. Hydrogenation: C-C multiple bonds/aromatic rings
4. Hydrogenation: nitriles, nitros, imines and oximes
5. Hydrogenation: debenzylation and dehalogenation
6. Hydrogenation: carbonyls

Each kit contains up to ten individually labelled samples, contained in a wipe-clean, sturdy case, well-suited for laboratory storage.