Handbook of C-H Transformations. Two Volumes

Description: Here, for the first time, the whole range of the functionalization of CH-bonds in one practical handbook. Throughout the more than 60 chapters the focus is on topicality and practicability, with all aspects presented in a compact and consistent way. Topics span modern catalysts for Friedel–Crafts type reactions to transition metal catalysts for the oxofunctionalization, via new methods for radicalic halogenation to domino processes by catalytic ortho metalation.

Renowned for his research as well as for his excellent articles and reviews, Gerald Dyker provides in these two volumes reliable and typical experimental procedures, making this a true source of high quality information, and a must for every organic chemist.

Contents:

INTRODUCTION AND BACKGROUND

CH ACTIVATION AT SP–HYBRIDIZED CARBON ATOMS

At terminal alkynes
- base-induced or catalyzed addition of terminal alkynes to electrophiles
- Sonogashira coupling reaction
- Glaser coupling reaction

At HCN
- hydrocyanation of alkenes and alkynes
- enantioselective addition of HCN to carbonyl compounds

CH ACTIVATION AT SP2–HYBRIDIZED CARBON ATOMS

At arenes
- CO–bond formation by oxidation
- by stoichiometric oxidants
- by enzymes
- supported by artificial transition metal catalysts
- towards industrial application: addition to unfunctionalized olefins
- Rh-catalyzed carbonylation
- Rh-catalyzed and Pt-catalyzed silylation
- ortho-selective alkylation of arenes
- DOM reaction
- intermolecular Pd-catalyzed arylations
- Pd-catalyzed arylations via palladacycles
- oxidative vinylation: Pd-catalyzed in comparison to Rh-catalyzed processes

At alkenes
- via cyclometallated Ru-complexes (or: Ru-catalyzed activation of alkenyl esters)
- via cyclometallated Rh-complexes
- Heck reaction
- via cyclopalladation
- Wacker oxidation

At aldehydes
- via cyclopalladation
- via cyclometallation with rhodium catalysts
- inter- and intramolecular (enantioselective) hydroacylation

CH ACTIVATION AT SP3–HYBRIDIZED CARBON ATOMS

At functionalized alkanes
- in allylic and benzylic position
- via palladacycles
- via cyclometallated complexes
- in α-position of nitriles
- asymmetric aldol reactions and related reactions
- oxidative free-radical Cyclizations with b-dicarbonyl compounds
- aerobic oxidation of alcohols

At unfunctionalized alkanes
- CO-bond formation by oxidation
- radicalic halogenation
- photochemical processes
- heterogenic catalysis by silica supported hydrido tantalum
- Pd-catalyzed carboxylation
- olefines by transition metal catalyzed dehydrogenation

Ordering:

Order Online - http://www.researchandmarkets.com/reports/2179590/
Order by Fax - using the form below
Order by Post - print the order form below and send to
Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct.

Product Name: Handbook of C-H Transformations. Two Volumes
Web Address: http://www.researchandmarkets.com/reports/2179590/
Office Code: SCDKIJ42

Product Format
Please select the product format and quantity you require:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Hard Copy (Hard Back)</th>
<th>USD 454 + USD 58 Shipping/Handling</th>
</tr>
</thead>
</table>

* Shipping/Handling is only charged once per order.

Contact Information
Please enter all the information below in BLOCK CAPITALS

<table>
<thead>
<tr>
<th>Title:</th>
<th>Mr</th>
<th>Mrs</th>
<th>Dr</th>
<th>Miss</th>
<th>Ms</th>
<th>Prof</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last Name:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email Address:</td>
<td>*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Title:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postal / Zip Code:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Country:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phone Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fax Number:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:
Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:
Account number: 833 130 83
Sort code: 98-53-30
Swift code: ULSBIE2D
IBAN number: IE78ULSB98533083313083
Bank Address: Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: __________________________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World