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| Autore | Lennox Alastair J. J |
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| Pubbl/distr/stampa | Cham ; ; New York, : Springer, c2013 |
| ISBN | 3-319-01134-0 |
| Edizione | [1st ed. 2013.] |
| Descrizione fisica | 1 online resource (xv, 223 pages) : illustrations (some color) |
| Collana | Springer theses |
| Disciplina | 541.395 |
| Soggetti | Salts Hydrolysis |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | "Doctoral thesis accepted by the University of Bristol, UK." |
| Nota di bibliografia | Includes bibliographical references. |
| Nota di contenuto | General Introduction -- Organotrifluoroborate Preparation -- Organotrifluoroborate Coupling -- Organotrifluoroborate Hydrolysis -- Conclusions and Future Work -- Experimental: General Experimental Details -- Experimental: Organotrifluoroborate Preparation -- Experimental: Organotrifluoroborate Coupling -- Experimental: Organotrifluoroborate Hydrolysis. |
| Sommario/riassunto | Alistair Lennox's thesis reports on the reactivity of organotrifluoroborates, which are becoming increasingly important reagents in synthesis. The thesis is divided into three sections. The first section describes a method for preparing organotrifluoroborates. The second section reports on a mechanistic investigation into the main application of RBF3K reagents as coupling partners in Suzuki-Miyaura coupling, phenomena identified as arising from organotrifluoroborate hydrolysis and fluoride release. The final section reports on a detailed investigation into the hydrolysis mechanism, a prerequisite for their Suzuki-Miyaura coupling, and how it may be predicted and controlled. This research has uncovered many interesting and useful details and shows how problems associated with Suzuki-Miyaura coupling can best be addressed. There has already been wide industrial uptake of the new procedures and insights. The broad nature and clear and succinct style will make the thesis a valuable resource for anyone working in synthesis, organometallic chemistry, or in homogeneous catalysis. |

