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Nota di contenuto	Palladium-Catalyzed Coupling Reactions: Practical Aspects and Future Developments; Contents; Foreword; Preface; List of Contributors; 1 Palladium-Catalyzed Cross-Coupling Reactions - A General Introduction; 1.1 Introduction; 1.1.1 Historical Reflection; 1.1.2 Characteristics, Recent Developments, and Progress; 1.1.3 Literature Reviews and Organization of the Chapter; 1.2 Carbon-Carbon Cross-Coupling Reactions Catalyzed by Palladium; 1.2.1 Classification and Overview; 1.2.2 Common Mechanistic Features of Cross-Coupling Reactions and Reactivity of the Substrates 1.2.2.1 Choice of the Carbon Electrophile1.2.2.2 Choice of the Carbon Nucleophile - What Makes the Difference?; 1.3 The Catalysts; 1.3.1 The Particular Features of Palladium; 1.3.2 Classes of Palladium Catalysts Applied to Cross-Coupling Reactions; 1.3.2.1 Ligands and Palladium Complexes - Homogeneous Systems; 1.3.2.2 Immobilized or Supported Palladium Complexes and Particles - Heterogeneous Systems; 1.3.2.3

Palladium Colloids and (Nonsupported) Nanoparticles; 1.3.2.4 Activity of Heterogeneous Catalysts; 1.4 Mechanistic Aspects  
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1.5 Future Challenges Abbreviations; References; 2 High-Turnover Heterogeneous Palladium Catalysts in Coupling Reactions: the Case of Pd Loaded on Dealuminated Y Zeolites; 2.1 Introduction; 2.2 Various Methodologies to Afford High Turnover Numbers Over Supported Pd Catalysts; 2.3 Structure and Characteristics of Ultrastable Y Zeolites; 2.4 Suzuki-Miyaura Reactions Catalyzed by Pd/USY; 2.4.1 Catalytic Performance of Pd/USY; 2.4.2 Pd Leaching from Pd/USY; 2.4.3 Selectivity in the Homocoupling Reactions; 2.4.4 Characterization of the Active Pd Species by X-Ray Absorption Spectroscopy  
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3.2 General Considerations Concerning Magnetic Particles as Catalyst Supports

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#### Sommario/riassunto

This handbook and ready reference brings together all significant issues of practical importance for interested readers in one single volume. While covering homogeneous and heterogeneous catalysis, the text is unique in focusing on such important aspects as using different reaction media, microwave techniques or catalyst recycling. It also provides a comprehensive treatment of modern-day coupling reactions and emphasizes those topics that show potential for future development, such as continuous flow systems, water as a reaction medium, and catalyst immobilization, among others. With i

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