1. Record Nr. UNINA9910557316703321 Autore Perez Sestelo Jose Titolo Advances in Cross-Coupling Reactions Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2020 Descrizione fisica 1 electronic resource (234 p.) Soggetti Research & information: general Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia In this Special Issue, recent advances in cross-coupling reactions are Sommario/riassunto

presented in the form of original research articles, reviews, and short communications. These contributions cover different topics in this area, including novel coupling reactions, reaction conditions, synthetic alternatives, metal ligands, and applications for new pharmaceutical compounds and organic materials. In particular, the reviews deal with methodologies such as the synthesis of diarylketones through palladium catalysis and the most relevant examples of Suzuki-Miyaura and Buchwald-Hartwig coupling reactions in the synthesis of bioactive compounds. The synthetic utility of cross-coupling reactions for the synthesis of medium-size rings and the utility of Stille and Suzuki coupling reactions for the synthesis of new molecular machines based on sterically hindered anthracenyl trypticenyl units are also summarized. The original research articles present the synthesis of 2alkynylpyrrols by inverse Sonogashira coupling and the synthesis of indoles under oxidative dearomative cross-dehydrogenative conditions. The efficient combination of iridium-catalyzed C-H borylation of aryl halides with the Sonogashira coupling and a sequential iridiumcatalyzed borylation of NH-free pyrroles followed by a Suzuki-Miyaura reaction are included. The synthesis of aryl propionic acids, a common structural motif in medicinal chemistry, and the synthesis of new organic dves are also covered.