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2.12 Indacenodithiophene-Based Polymers2.13 Conclusion and Outlook; References; 3 Molecular Design of Conjugated Polymers for High-Efficiency Solar Cells; 3.1 Introduction; 3.2 Structural Features of Conjugated Polymers; 3.3 "D-A" Approach; 3.3.1 Rational Design of Conjugated Backbones: "Weak Donor-Strong Acceptor" Copolymer; 3.3.1.1 "Weak Donor" Moieties to Improve VOC; 3.3.1.2 Balancing VOC and JSC: Interplay of Bandgap and Energy Levels; 3.3.1.3 From BT to 4DTBT: Why is a "Soluble Acceptor" Better?; 3.3.1.4 "Strong Acceptor" Moieties to Increase JSC; 3.3.2 Side Chains Are NOT Trivial
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6.3.1 Donor and Acceptor Materials

Sommario/riassunto

The versatility of organic photovoltaics is already well known and this completely revised,updated, and enlarged edition of a classic provides an up-to-date overview of this hottopic.The proven structure of the successful first edition, divided into the three key aspectsof successful device design: materials, device physics, and manufacturing technologies,has been retained. Important aspects such as printing technologies, substrates, and electrodesystems are covered. The result is a balanced, comprehensive text on the fundamentalsas well as th