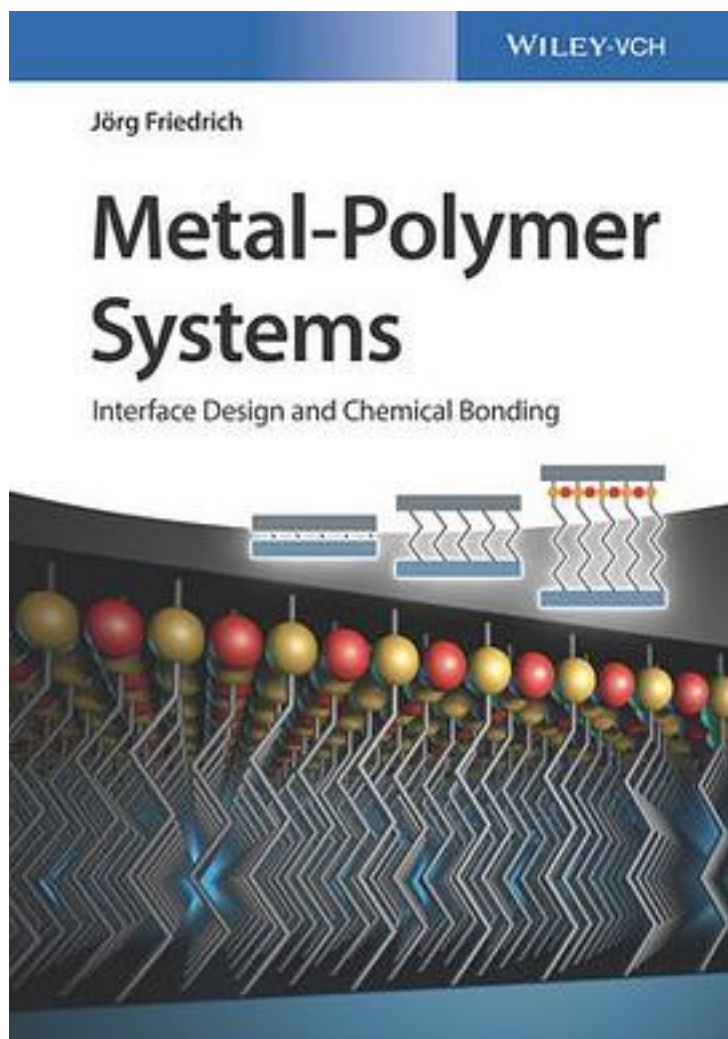


Metal-Polymer Systems



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出版者:Wiley

出版时间:2017-12

装帧:Hardcover

isbn:9783527336777

The result of decades of research by a pioneer in the field, this is the first book to deal

exclusively with achieving high-performance metal-polymer composites by chemical bonding.

Covering both the academic and practical aspects, the author focuses on the chemistry of interfaces between metals and polymers with a particular emphasis on the chemical bonding between the different materials. He elucidates the various approaches to obtaining a stable interface, including, but not limited to, thermodynamically driven redox reactions, bond protection to prevent hydrolysis, the introduction of barrier layers, and stabilization by spacer molecules. Throughout, chemical bonding is promoted as a simple and economically viable alternative to adhesion based on reversible weak physical interaction.

Consequently, the text equips readers with the practical tools necessary for designing high-strength metal-polymer composites with such desired properties as resilience, flexibility, rigidity or degradation resistance.

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