1. Record Nr. UNINA9910760249703321

Autore	Okubo Masaaki
Titolo	Nonthermal Plasma Surface Modification of Materials / / by Masaaki Okubo
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	9789819945061 9819945062
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (219 pages)
Disciplina	620.44
Soggetti	Plasma (Ionized gases) Surfaces (Technology) Thin films Surfaces (Physics) Atmospheric pressure plasmas Surfaces, Interfaces and Thin Film Surface and Interface and Thin Film Basic Plasma Phenomena and Gas Discharges
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Fundamentals of Nonthermal Plasma Technologies -- Fundamentals of Surface Treatment Technologies -- Hydrophilic Treatment For Polymer Surface And Its Application -- Hydrophilic Treatment Technology For Textile, Filter, And Glass And Its Application -- Hydrophobic Treatment For Polymer Surface.
Sommario/riassunto	This book describes the fundamentals and applicability of the atmospheric-pressure non-thermal plasma surface modification of materials. Non-thermal plasma modification is an effective procedure for chemical activation. In this book, the principles of non-thermal plasma surface modification and its application to various machine parts are described. By reading this book, technologists from a variety of fields can learn about plasma generation and surface treatment technology, which will assist them in performing advanced procedures. This book also explains the basics of atmospheric-pressure plasma and the principle of plasma treatment in an easy-to-understand manner

and also provides examples of the application of atmospheric-pressure plasma surface modification technologies to plastics, glass, polymers, and metals. After reading this book, readers can get the knowledge that researchers need to apply the methodology to meet their own research goals. The book is self-contained in the sense that it spans the divide between the fundamentals and more advanced content regarding applications. Many engineers and graduate students working in this field get many helps.