1. Record Nr. UNINA990000512650403321

Autore	Whiteside, Conon Doyle
Titolo	EDP systems for credit management / Conon D. Whiteside
Pubbl/distr/stampa	New York : Wiley & Sons, ©1971
ISBN	0-471-94080-1
Descrizione fisica	191 p. : ill. ; 28 cm
Disciplina	658.88
Locazione	DINEL
Collocazione	10 P.T. 237
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9910253921403321

Titolo	Bio-inspired Structured Adhesives : Biological Prototypes, Fabrication, Tribological Properties, Contact Mechanics, and Novel Concepts / / edited by Lars Heepe, Longjian Xue, Stanislav N. Gorb
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-59114-2
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XVIII, 348 p. 197 illus., 79 illus. in color.)
Collana	Biologically-Inspired Systems, , 2211-0607 ; ; 9
Disciplina	620.11
Soggetti	Biomaterials Biophysics Biomedical engineering Nanoscience Surfaces (Physics) Biomedical Engineering and Bioengineering Nanophysics Surface and Interface and Thin Film
Lingua di pubblicazione	Inglese

Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Biology -- Biological prototypes for bio-inspired adhesives -- Adhesion and friction in biological attachment systems -- Fabrication -- New routes for large-scale fabrication of bio-inspired adhesives Characterization -- Bridging the gap: from JKR-like to conformal adhesion testing -- Adhesion, Friction, and Contact Mechanics -- Adhesion scaling of mushroom-shaped adhesive elements -- Different failure types in the adhesion of bio-inspired adhesives -- Material, structural, and material property gradients in fibrillar adhesive systems -- Role of viscoelasticity in bio-inspired adhesives -- Friction of hexagonally patterned elastomeric films -- Switchability -- Pressure sensitive adhesion: switchable adhesion by curvature control of inflated elastic membranes -- Current strategies of switchable adhesion -- Applications.
Sommario/riassunto	This book deals with the adhesion, friction and contact mechanics of living organisms. Further, it presents the remarkable adhesive abilities of the living organisms which inspired the design of novel micro- and nanostructured adhesives that can be used in various applications, such as climbing robots, reusable tapes, and biomedical bandages. The technologies for both the synthesis and construction of bio-inspired adhesive micro- and nanostructures, as well as their performance, are discussed in detail. Representatives of several animal groups, such as insects, spiders, tree frogs, and lizards, are able to walk on (and therefore attach to) tilted, vertical surfaces, and even ceilings in different environments. Studies have demonstrated that their highly specialized micro- and nanostructures, in combination with particular surface chemistries, are responsible for this impressive and reversible adhesion. These structures can maximize the formation of large effective contact areas on surfaces of varying roughness and chemical composition under different environmental conditions.