Record Nr. UNINA9910438122903321 Laser Technology in Biomimetics: Basics and Applications / / edited by **Titolo** Volker Schmidt, Maria Regina Belegratis Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, , 2013 **ISBN** 3-642-41341-2 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (281 p.) Collana Biological and Medical Physics, Biomedical Engineering, , 1618-7210 Disciplina 610.28 Soggetti **Biophysics** Biological physics Lasers **Photonics** Biomedical engineering **Optics** Electrodynamics Biological and Medical Physics, Biophysics Optics, Lasers, Photonics, Optical Devices Biomedical Engineering and Bioengineering Classical Electrodynamics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Laser fabrication in biomimetics -- Laser technology in biomimetics Nota di contenuto applications -- Future perspectives. Lasers are progressively more used as versatile tools for fabrication Sommario/riassunto purposes. The wide range of available powers, wavelengths, operation modes, repetition rates etc. facilitate the processing of a large spectrum of materials at exceptional precision and quality. Hence, manifold methods were established in the past and novel methods are continuously under development. Biomimetics, the translation from nature-inspired principles to technical applications, is strongly multidisciplinary. This field offers intrinsically a wide scope of

applications for laser based methods regarding structuring and

modification of materials. This book is dedicated to laser fabrication methods in biomimetics. It introduces both, a laser technology as well as an application focused approach. The book covers the most important laser lithographic methods and various biomimetics application scenarios ranging from coatings and biotechnology to construction, medical applications and photonics.