1. Record Nr. UNINA9910554273603321

Autore	Kubik Stefan
Titolo	Supramolecular chemistry : from concepts to applications / / Stefan Kubik
Pubbl/distr/stampa	Berlin, Germany ; ; Boston, Massachusetts : , : De Gruyter, , [2021] ©2021
ISBN	3-11-059357-2 3-11-059561-3
Descrizione fisica	1 online resource (XVI, 597 p.)
Collana	De Gruyter Textbook
Classificazione	VK 7150
Disciplina	547.7
Soggetti	Supramolecular chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Preface -- Contents -- Questions discussed -- 1. Introduction and overview -- 2. Analyzing complex formation -- 3. Understanding molecular recognition -- 4. Hosting ions and molecules -- 5. Assembling molecules -- 6. Threading molecules -- 7. Controlling molecular motion -- 8. Mediating molecular transformations -- 9. Transporting molecules -- 10. Detecting molecules -- 11. Applying supramolecular systems -- 12. Appendices -- Index
Sommario/riassunto	This book is an excellent introduction to supramolecular chemistry, explaining how molecules can be arranged to more complex chemical systems through non-covalent interactions and what makes supramolecular architectures stable. Starting with the principles of molecular recognition and supramolecular receptors, the author further gives an overview of different supramolecular systems and methods for their synthesis.

2. Record Nr. UNINA9910634036003321

Titolo	Advances in Computational Methods and Technologies in Aeronautics and Industry / / edited by Dietrich Knoerzer, Jacques Periaux, Tero Tuovinen
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-031-12019-1
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (290 pages)
Collana	Computational Methods in Applied Sciences, , 2543-0203 ; ; 57
Disciplina	551.48 629.13015118
Soggetti	Aerospace engineering Astronautics Mathematics - Data processing Industrial engineering Production engineering Aerospace Technology and Astronautics Computational Mathematics and Numerical Analysis Industrial and Production Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Drag Reduction in Turbulent Channel with Spanwise Traveling Wave of Blowing and Suction -- Two Validation Cases for Essentially Unsteady High-Speed Turbulent Flows -- Disciplinary Implications of a System Architecting Approach to Collaborative Aircraft Design -- Finite Element Solution of a Solder Filling Problem with Contact Angle -- Inverse Aerofoil Design Using Deep Neural Networks -- Variational Problem of Vibration Suppression for Thermoelastic Axially Moving Web -- Solving Multi-objective Optimal Design and Maintenance for Systems Based on Calendar Times Using GDE3 -- Numerical Simulation of Ducted Fan Aerodynamics and Aeroacoustics -- A Symmetric Algorithm for Solving Mechanical Contact Problems Using FreeFEM -- Active Vibration Control of Lattice Core Sandwich Structures Using Macro-Fiber Composite Actuators -- Integration of Statistical Mathematics and

Machine Learning with CAE Expands the New Digital World for Manufacturing Industries -- Design and Testing a Full-Scale Laminar Wing Leading Edge High-Lift System -- A 2D Validation Experiment for Dynamic High-Lift System Aerodynamics -- Numerical Analysis of a Mechanical De-Icing Process by Low Frequency Oscillation of a CFRP Layer -- Working Title: Smart Morphing and Sensing for the Wings of the Future -- Game Theory and Multi-Objective Optimization: A Review of Concepts and Methods and their Extension to Solving Huge-Scale Optimization Problems -- Multidisciplinary Modelling, Analysis and Optimisation for Aircraft and System Level Design and Validation -- An Overview of ONERA Research at Aircraft Level towards Greener Aviation -- Direct Comparison of Dynamic Adaptive Metamodels in Multidisciplinary Optimization Frameworks.

Sommario/riassunto

This book provides research results using computational methods for fluid dynamics and engineering problems in aeronautics and other scientific and industrial applications. It gives an overview on the state of the art and the technology trends requiring advanced computational methods towards digitization in industrial and scientific processes. The chapters are based on Special Technology Sessions of the WCCM-ECCOMAS Virtual Congress 2021.