1. Record Nr. UNISA996517751003316

Titolo	Evolutionary computation in combinatorial optimization : 23rd European Conference, EvoCOP 2023, held as part of EvoStar 2023, Brno, Czech Republic, April 12-14, 2023, proceedings / / edited by Leslie Perez Caceres and Thomas Stutzle
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2023] ©2023
ISBN	9783031300356 9783031300349
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (258 pages)
Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 13987
Disciplina	929.374
Soggetti	Evolutionary computation Evolutionary programming (Computer science)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Fairer comparisons for Travelling Salesman Problem solutions using Hash Functions -- Application of Adapt-CMSA to the Two-Echelon Electric Vehicle Routing Problem with Simultaneous Pickup and Deliveries -- Real-World Vehicle Routing using Adaptive Large Neighborhood Search -- A Multilevel Optimization Approach for Large Scale Battery Exchange Station Location Planning -- A memetic algorithm for deinterleaving pulse trains -- Application of Negative Learning Ant Colony Optimization to the Far From Most String Problem -- Monte Carlo Tree Search with Adaptive Simulation: a Case Study on Weighted Vertex Coloring -- Evolutionary Strategies for the Design of Binary Linear Codes -- A Policy-Based Learning Beam Search for Combinatorial Optimization -- Cooperative Coevolutionary Genetic Programming Hyper Heuristic for Budget Constrained Dynamic Multi-workflow Scheduling in Cloud Computing -- OneMax is not the Easiest Function for Fitness Improvements -- The Cost of Randomness in Evolutionary Algorithms: Crossover Can Save Random Bits -- Multi-objectivization Relaxes Multi-funnel Structures in Singleobjective NK-landscapes -- Decision/Objective Space Trajectory Networks for Multi-

	objective Combinatorial Optimisation -- On the e_ect of solution representation and neighborhood definition in AutoML Fitness Landscapes.
Sommario/riassunto	This book constitutes the refereed proceedings of the 23rd European Conference on Evolutionary Computation in Combinatorial Optimization, EvoCOP 2023, held as part of Evo*2023, in Brno, Czech Republic in April 2023, co-located with the Evo*2023 events: EvoMUSART, EvoApplications, and EuroGP. The 15 revised full papers presented in this book were carefully reviewed and selected from 32 submissions. They present recent theoretical and experimental advances in combinatorial optimization, evolutionary algorithms, and related research fields.

2.

Record Nr.	UNINA9910298622603321
Autore	Gu Jiajun
Titolo	Metallic Butterfly Wing Scales : Superstructures with High Surface-Enhancement Properties for Optical Applications / / by Jiajun Gu, Di Zhang, Yongwen Tan
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-12535-4
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (99 p.)
Collana	SpringerBriefs in Materials, , 2192-1091
Disciplina	620.11 620.11295 620.11297 620.44
Soggetti	Optical materials Electronics - Materials Lasers Photonics Biotechnology Nanotechnology Materials science Materials—Surfaces Thin films Optical and Electronic Materials Optics, Lasers, Photonics, Optical Devices Microengineering Nanotechnology and Microengineering

	Characterization and Evaluation of Materials Surfaces and Interfaces, Thin Films
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Background -- Towards Metallic Butterfly Wing Scales -- Metal Scale Replicas Prepared via Electroless Deposition -- SERS Performance of Au Scale Replicas -- SERS Mechanisms of Metal Scale Replicas -- Conclusions and Perspectives.
Sommario/riassunto	This book presents a method for replicating natural butterfly wing scales using a variety of metals for state-of-the-art applications requiring high surface-enhancement properties. During the past decade, three dimensional (3D) sub-micrometer structures have attracted considerable attention for optical applications. These 3D subwavelength metallic structures are, however, difficult to prepare. By contrast, the 3D superstructures of butterfly wing scales, with more than 175 000 morphologies, are efficiently engineered by nature. Natural butterfly wing scales feature 3D sub-micrometer structures that are superior to many human designs in terms of structural complexity, reproducibility, and cost. Such natural wealth offers a versatile chemical route via the replication of these structures into functional metals. A single versatile chemical route can be used to produce butterfly scales in seven different metals. These synthesized structures have the potential for catalytic (Au, Pt, Pd), thermal (Ag, Au, Cu), electrical (Au, Cu, Ag), magnetic (Co, Ni), and optical (Au, Ag, Cu) applications. Plasmon-active Au, Cu, Ag butterfly scales have exhibited excellent properties in surface-enhanced Raman scattering (SERS). The Au scales as SERS substrates have ten times the analyte detection sensitivity and are one-tenth the cost of their human-designed commercial counterparts (KlariteTM). Preliminary mechanisms of these surface-enhancement phenomena are also reviewed.