



Journal of Science

Volume: 17, Issue: 1, Year: 2021

Contact

Manisa Celal Bayar University

Institute of Natural and Applied Sciences

Campus of Şehit Prof Dr İlhan Varank 45140 Yunusemre – MANİSA, TURKEY

Tel: (00 90) 236 201 27 05

Fax: (00 90) 236 241 21 49

e-mail: cbujos@gmail.com

Web: <http://dergipark.gov.tr/cbayarfbe>

“CBU Journal of Science is indexed by ULAKBIM-TUBITAK TR-DIZIN”



ISSN 1305-130X

E-ISSN 1305-1385

CBUJOS is published quarterly at Manisa Celal Bayar University Printing House

“CBU Journal of Science is a refereed scientific journal”



Celal Bayar University Journal of Science

Owner

Manisa Celal Bayar University,

Editors : Assoc. Prof. Dr. Kamil ŞİRİN

Assoc. Prof. Dr.. Emine KEMİKLİOĞLU

Assistant Editor: Assoc. Prof. Dr. Mustafa AKYOL

Layout Editor & Secretary

Dr. İlker Çetin KESKİN

International Scientific Advisory Board

Prof. Dr. Arianit REKA; State University of Tetova, Macedonia

Prof. Dr. Tomasz NIEMIEC; Warsaw University of Life Sciences, Poland

Prof. Dr. Alyani ISMAIL; Universiti Putra, Malaysia

Prof. Dr. Iuliana APRODU; Dunarea de Jos University, Romania

Assoc. Prof. Dr. Johanan Christian PRASANNA; Madras Christian College, South India

Assoc. Prof. Dr. Noureddine ISSAOUI; Université de Monastir, Tunisie.

Assoc. Dr. Edward Albert UECKERMANN; North-West University, South Africa

Assoc. Dr. Zhi-Qiang ZHANG; The University of Auckland, Holland

Assist. Prof. Dr. Young Ki KIM; Pohang University of Science and Technology, South Korea

Assist. Prof. Can BAYRAM; University of Illinois, USA

Assist. Prof. Dr. Mona MIRHEYDARI; Rutgers University, USA

Assist. Prof. Dr. Donatella ALBANESE; Università Degli Studi Di Salerno, Italy

Assist. Prof. Dr. Jinghua JIANG; The University of Memphis, USA

Assist. Prof. Dr. Jens OLDELAND; University of Hamburg, Germany

Dr. Cheng CHENG; Apple Inc., USA

Dr. Sajedah AFGHAH; Microsoft Corporation, USA

Dr. Jinghua JIANG; The University of Memphis

National Scientific Advisory Board

Prof. Dr. Mustafa Ersöz; Selçuk University

Prof. Dr. Oğuz Gürsoy; Mehmet Akif University

Prof. Dr. Mehmet Çevik; İzmir Katip Çelebi University

Prof. Dr. Sezgin Çelik; Yıldız Teknik University

Prof. Dr. Osman Dayan; Çanakkale Onsekiz Mart University

Prof. Dr. Serdar İplikçi; Pamukkale University

Prof. Dr. Yasin Üst; Yıldız Teknik University

Prof. Dr. Mahmut Kuş; Konya Teknik University

Prof. Dr. Ertuğ Gundüz; Hacettepe University

Prof. Dr. Tülin Aydemir; Manisa Celal Bayar University

Prof. Dr. Sezai Taşkın; Manisa Celal Bayar University

Prof. Dr. Fatma Şaşmaz Ören; Manisa Celal Bayar University

Assoc. Prof. Dr. Fatih Doğan; Çanakkale Onsekiz Mart University

Assoc. Prof. Dr. Erol Akpınar; Abant İzzet Baysal University

Assoc. Prof. Dr. Yeliz Yıldırım; Ege University

Assoc. Prof. Dr. Serap Derman; Yıldız Teknik University

Assoc. Prof. Dr. Hayati Mamur; Manisa Celal Bayar University

Assoc. Prof. Dr. Fatih Selimefendigil; Manisa Celal Bayar University

Assoc. Prof. Dr. Özlem Çağındı; Manisa Celal Bayar University

Assoc. Prof. Dr. Osman Çulha; Manisa Celal Bayar University

Assoc. Prof. Dr. Ali Demir; Manisa Celal Bayar University

Assoc. Prof. Dr. Ali Konuralp; Manisa Celal Bayar University

Assist. Prof. Dr. Nil Mansuroğlu; Ahi Evran University

Assist. Prof. Dr. Zeynep Çipiloğlu Yıldız; Manisa Celal Bayar University



CBU Journal of Science

Celal Bayar University Journal of Science (CBUJOS) covers scientific studies in the fields of Engineering and Science and publishes accounts of original research articles concerned with all aspects of experimental and theoretical studies. CBU Journal of Science is a refereed scientific journal published four times annually (March, June, September and December) by Institute of Natural and Applied Sciences of Manisa Celal Bayar University. CBU Journal of Science considers the original research articles written in English for evaluation.

CBU Journal of Science is indexed by TUBİTAK ULAKBİM TR-DİZİN, EBSCOhost and also is included in DOAJ, Cite Factor, Journal TOCS, Advanced Science Index and OAJI databases. Digital Object Identifier (DOI) number will be assigned for all the articles being published in CBU Journal of Science.

Instructions for Authors and Article Template can be found on the main page of MCBU Institute of Natural and Applied Sciences (<http://fbe.cbu.edu.tr>)





Vol: 17, Issue: 1, Year: 2021

Contents

Research Article

Pages

Thermal Behaviours of Flower Shape BSA@Cu(II) Hybrid Nanostructures DOI: 10.18466/cbayarfbe.811643 Burcu Somtürk Yılmaz , Serkan Dayan, Cevahir Altınkaynak, Nilgün Kalaycıoğlu Özpozan, Nalan Özdemir	1-9
Newly Axially Silicon (IV) Phthalocyanine Photosensitizer: Design, Synthesis and Photo-chemical Properties DOI: 10.18466/cbayarfbe.821910 Gülçin Ekiner, Hülya Yanık	11-16
The Impact of European Green Deal on Turkey's Iron and Steel Industry: Decomposition Analysis of Energy-Related Sectoral Emissions DOI: 10.18466/cbayarfbe.823265 Abdulkadir Bektaş	17-29
Modeling of Inverse Kinematic Analysis of Open-Source Medical Assist Robot Arm by Python DOI: 10.18466/cbayarfbe.776697 Mehmet Gül	31-34
Static Analysis of the Slotted Upper Plate of Low Pressure Casting Machine DOI: 10.18466/cbayarfbe.779687 Yasemin Nur Aydın, Onur Özaydın, Alper Akış	35-41
Effect of Meteorological Parameters on PM10 Concentrations in Ardahan by Wavelet Coherence Analysis DOI: 10.780314/cbayarfbe.738596 Necla Barlık	43-49
The Effect of Addition of ZnO to Granite Body on Sintering and Mechanical Properties DOI: 10.18466/cbayarfbe. 814870 Savaş Elmas	51-57
Boole approximation method with residual error function to solve linear Volterra integro-differential equations DOI: 10.801544/cbayarfbe.791302 Kübra Erdem Biçer, Hale Gül Dağ	59-66
Existence and Uniqueness Results for a Computer Virus Spreading Model with Atangana-Baleanu Derivative DOI: 10.18466/cbayarfbe.716573 Sümeyra Uçar	67-72
Attenuation of Docetaxel-induced Oxidative Stress and Apoptosis in HEK 293 Human Embryonic Kidney Cells by Curcumin Treatment DOI: 10.18466/cbayarfbe.752495 Süleyman İlhan	73-78
Filler Type and Particle Distribution Effect on Some Properties of Polymer Composites DOI: 10.18466/cbayarfbe. 787883 Bayram Poyraz, Şevki Eren, Serkan Subaşı	79-89



Evaluation of the Bearing Capacity of Shallow Strip Foundations Resting on Sandy Soils with Analytical and Numerical Methods

DOI: 10.18466/cbayarfbe.705653

Emrah Dađlı, Ömer Faruk Çapar

91-100

Metakaolin and Red-Mud Based Geopolymer: Resistance to Sodium and Magnesium Sulfate Attack

DOI: 10.18466/cbayarfbe.790946

Ouiame Chakkor, Mehmet Fatih Altan, Orhan Canpolat

101-113