E-ISSN: 2687 - 6167
Number 44
June 2020

JSR A

JOURNAL OF SCIENTIFIC REPORTS A

JOURNAL OF SCIENTIFIC REPORTS A - JUNE 2020 - NUMBER 44

Kutahya Dumlupinar University Scientific Reports A
Evliya Celebi Campus Tavsanli Road 10 KM. 43270 Kutahya
Phone : (0274) 443 19 29 - 30
E-mail : joursra@gmail.com
www.gsjsra.com

Dumlupinar University Press

gate of science

Kütahya Dumlupınar University
Institute of Graduate Studies

Journal of Scientific
Reports-A
E-ISSN: 2687-6167
Number 44, June 2020

Owner
On Behalf of Kütahya Dumlupınar University
Prof. Dr. Kazım UYSAL (Rector),
On Behalf of Institute of Graduate Studies
Prof. Dr. Şahmurat ARIK(Director)

Editorial Board

Prof. Dr. Önder UYSAL	Kütahya Dumlupınar University/ Mining Engineering
Prof. Dr. Cengiz YENİKAYA	Kütahya Dumlupınar University/ Chemistry
Prof. Dr. Cengiz KARAGÜZEL	Kütahya Dumlupınar University / Mining Engineering
Prof. Dr. Gürsel YANIK	Kütahya Dumlupınar University / Geological Eng.
Assoc. Prof. Cemal PARLAK	Ege University / Physics
Assoc. Prof. Nevzat BEYAZIT	Ondokuz Mayıs University / Enviromental Eng.
Assoc. Prof. Levent URTEKİN	Ahi Evran University / Mechanical Eng.
Prof. Dr. Fatih ŞEN	Kütahya Dumlupınar University / Biochemistry
Assist. Prof. Ümran ERÇETİN	Kütahya Dumlupınar University / Mechanical Eng.

Journal of Scientific Reports-A started its publication life in 2000 as name of Journal of Science and Technology of Dumlupınar University and is a national peer-reviewed journal published regularly twice a year in June and December. The language of the journal is English. Articles submitted to the journal are evaluated by at least two referees who are experts in the subject and selected by the editorial board. All articles submitted to the journal are evaluated by the double-blind method. Articles submitted to our journal for review should not be previously published, accepted for publication and in the process of being evaluated for publication in another journal. All responsibility for the articles published in the journal belongs to the author(s).

The journal aims to share scientific studies carried out in the fields of science and engineering at national and international level with scientists and the public. Original research articles, review articles and short notes in science and engineering disciplines are accepted for the journal. Original research articles are expected to contain theoretical and experimental results and should not be published in other journals. In the review articles, it is expected that scientific, technological and current developments on a specific subject are reflected by using an extensive bibliography and made a satisfying evaluation of these. Short notes should be brief writings prepared to announce the first findings of an original study.

Correspondence Address: Kütahya Dumlupınar Üniversitesi Evliya Çelebi Yerleşkesi Fen Bilimleri Enstitüsü 43270 KÜTAHYA
Phone: 0 274 443 19 42 **Fax:** 0 274 265 20 60
E-mail: joursra@gmail.com **Webpage:** www.jsra.com

JSR A
Journal of Scientific Reports

Section Editors

Civil Engineering
Prof. Dr. M. Çağatay KARABÖRK — Kütahya Dumlupınar University

Mechanical Engineering
Prof. Dr. Ramazan KÖSE — Kütahya Dumlupınar University

Electrical-Electronics Engineering
Assist. Prof. Kadir VARDAR — Kütahya Dumlupınar University

Computer Engineering
Assoc. Prof. Doğan AYDIN — Kütahya Dumlupınar University

Industrial Engineering
Assist. Prof. Üyesi Kerem CİDDİ — Kütahya Dumlupınar University

Mining Engineering
Assist. Prof. Uğur DEMİR — Kütahya Dumlupınar University

Geology Engineering
Assist. Prof. Muzaffer ÖZBURAN — Kütahya Dumlupınar University

Metallurgical and Materials Engineering
Prof. Dr. İskender IŞIK — Kütahya Dumlupınar University

Food Engineering
Prof. Dr. Muhammet DÖNMEZ — Kütahya Dumlupınar University

Environmental Engineering
Doç. Dr. Nevzat BEYAZIT — Ondokuz Mayıs University

Mathematics
Assist. Prof. Cansu KESKİN — Kütahya Dumlupınar University

Physics
Assoc. Prof. Huriye Sanem AYDOĞU — Kütahya Dumlupınar University

Chemistry
Assoc. Prof. Bülent ZEYBEK — Kütahya Dumlupınar University

Biology
Assist. Prof. Nüket Akalın BİNGÖL — Kütahya Dumlupınar University

Biochemistry
Assoc. Prof. Derya KOYUNCU ZEYBEK — Kütahya Dumlupınar University

Occupational Health and Safety
Prof. Dr. Cem ŞENSÖĞÜT — Kütahya Dumlupınar University

JSR A
Journal of Scientific Reports

Advisory Board

Prof. Dr. Sibel AKAR	Eskişehir Osmangazi University / Chemistry
Prof. Dr. Abdurrahman AKTÜMSEK	Selçuk University/ Bialogy
Prof. Dr. Mustafa ALTUNOK	Gazi University / Tree-Jobs Industrial Engineering
Prof. Dr. Uğur ARİFOĞLU	Sakarya University / Electirical and Electr. Engineering
Prof. Dr. Oktay ARSLAN	Balıkesir University / Chemistry
Prof. Dr. Şükrü ASLAN	Sivas Cumhuriyet University / Enviromental Engineering
Prof. Dr. Ülfet ATAV	Selçuk University / Pyhsics
Prof. Dr. Mustafa BAYRAKTAR	TOBB Ekonomi ve Teknoloji University / Mathamathics
Prof. Dr. Niyazi BİLİM	Konya Technical University / Mining Engineering
Prof. Dr. İsmail BOZTOSUN	Akdeniz University / Pyhsics
Prof. Dr. Erdal ÇELİK	Dokuz Eylül University / Metalurgical and Material Eng.
Prof. Dr. Hayri DAYIOĞLU	Kütahya Dumlupınar University / Bialogy
Prof. Dr. Muhammet DÖNMEZ	Kütahya Dumlupınar University / Food Engineering
Prof. Dr. Mehmet Ali EBEOĞLU	Kütahya Dumlupınar University / Elec.and Electr. Eng.
Prof. Dr. İsmail Göktay EDİZ	Kütahya Dumlupınar University / Mining Engineering
Prof. Dr. İsmail EKİNCİOĞLU	Kütahya Dumlupınar University / Mathematics
Prof. Dr. Kaan ERARSLAN	Kütahya Dumlupınar University / Mining Engineering
Prof. Dr. Zeynal Abiddin ERGÜLER	Kütahya Dumlupınar University / Geological Eng.
Prof. Dr. Seyhan FIRAT	Gazi University / Civil Engineering
Prof. Dr. Remzi GÖREN	Sakarya University / Metalurgical and Material Eng.
Prof. Dr. Rasim İPEK	Ege University / Mechanical Engineering
Prof. Dr. Refail KASIMBEYLİ	Eskişehir Technical University / Industrial Engineering
Prof. Dr. Hamdi Şükür KILIÇ	Selçuk University / Physics
Prof. Dr. Yaşar KİBİCİ	Bilecik Şeyh Edebali University / Geological Eng.
Prof. Dr. İsmail KOCAÇALIŞKAN	Yıldız Technical University / Molecular Bio. and Gen.
Prof. Dr. Mahmut KOÇAK	Eskişehir Osmangazi University / Math-Computer
Prof. Dr. Muhsin KONUK	Üsküdar University / Molecular Biology and Gen.
Prof. Dr. Mustafa KURU	Başkent University / Molecular Biology and Gen.
Prof. Dr. Ömer İrfan KÜFREVİOĞLU	Atatürk University / Biochemistry
Prof. Dr. Halim MUTLU	Ankara University / Geological Engineering
Prof. Dr. Ekrem SAVAŞ	İstanbul Ticaret University / Mathematics
Prof. Dr. Murat TANIŞLI	Eskişehir Technical University / Physics
Prof. Dr. Ali Rehber TÜRKER	Gazi University / Chemistry
Prof. Dr. Mustafa TÜRKMEN	Giresun University / Biology
Prof. Dr. Abdülmecit TÜRÜT	İstanbul Medeniyet University / Physics Enginering
Prof. Dr. Eşref ÜNLÜOĞLU	Eskişehir Osmangazi University / Civil Engineering
Prof. Dr. Nurettin YAYLI	Karadeniz Technical University / Pharmacy
Prof. Dr. Yusuf YAYLI	Ankara University / Mathematics
Prof. Dr. Elçin YUSUFOĞLU	Uşak University / Mathematics
Prof. Dr. Hüseyin Serdar YÜCESU	Gazi University / Automotive Engineering
Prof. Dr. Mehmet Tevfik ZEYREK	Middle East Technical University / Pyhsics

JOURNAL OF SCIENTIFIC REPORTS-A
E-ISSN: 2687-6167

CONTENTS

RESEARCH ARTICLES

Investigation of the Effection Mechanism of Cinnamic Acid on Contraction and Relaxation of Smooth Muscles of Ileum and Bladder of Rats 1-23
Fatih ALAN, Hayri DAYIOĞLU, Ayhan YILMAZ

Finite Element Method Based Structural Analysis of Quadcopter Uav Chassis Produced with 3D Printer 24-32
Serkan ÇAŞKA, Kadir GÖK, Mustafa AYDIN, İkbal ÖZDEMİR

Future Projection of Olive Production in Çanakkale 33-43
Mustafa ÖĞÜTÇÜ, Akın KIRAÇ

Improvement and Cost Analysis of Blasting Operations at Western Lignite Open Cast Mine 44-56
Şahin YUVKA, Emre DURAN, Önder UYSAL

Evaluation of Cappadocia Perlites as A Building Material with Natural Stone Residues 57-70
Abdul Vahap KORMAZ