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ONLINE CONGRESS

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IV. International

ISCMP

Tetovo-NORTH
MACEDONIA 2020

Joint Science Congress of Materials and Polymers

Book of Abstracts & Proceedings

7 - 10 October 2020 - Tetovo / NORTH MACEDONIA

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IV. International
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2020

IV. International ISCMP NORTH MACEDONIA 2020
Joint Science Congress of Materials and Polymers
7-10 October 2020 Tetovo / NORTH MACEDONIA
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ISCMP 2020

IV. International Joint Science Congress of Materials & Polymers
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BOOK of ABSTRACTS & PROCEEDINGS

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Organized by

Çanakkale Onsekiz Mart University
University of Tetova
Pristhina University
Management Science University, Malaysia
Chemists Society
Materials Research Society of North Macedonia
Society of Chemists and Technologists of Macedonia
Tunisian Chemical Society

WELCOME ADDRESS

Dear participants,

Remarkable advances have been achieved in the science of materials and polymer over the last fifty years. A high quality of life away from environmental destruction has been set as a goal for a high level of human welfare and a sustainable future. As a result, more novel and functional materials have been introduced into everyday life. It is expected by not only sectoral and academic stakeholders but also end users that this process will last longer, producing more beneficial results.

Therefore, it is the primary aim of this scholarly gathering to transform research- and innovationfocused scientists, financial success promoting production, and social responsibility-oriented industry into strong stakeholders. To this end, an academic event will be jointly organized by the Chemists Society (Turkey), Çanakkale Onsekiz Mart University (Turkey), University of Tetova (North Macedonia), Pristhina University (Kosovo), Management and Science University (Malaysia), Tunisian Chemical Society (Tunisia), Materials Research Society of North Macedonia (Macedonia), and Society of Chemistsand Technologists of Macedonia (Macedonia) of four different countries with sector al supports.

It is believed that the assembly of participants from different countries will allow them to share their knowledge, to exchange views, and to form various partnerships. Along with the scientific activities, a comprehensive social activities calendar was produced by the organizing committee to allow for fruitful interactions.

Although it is, broadly speaking, a scientific congress, it is different from other congresses in terms of such aspects as follows;

(i) A collaboration protocol will be signed between the partners of the ICSMP following the completion of the Congress. Each partner will deliver a presentation on their strengths and interest in field of collaboration. Then, the partners will sign bilateral and multilateral agreements. (ii) Participants with posters will be allowed to deliver a four-minute presentation if they wish to and will be awarded a certificate of short oral presentation.

We would be more than happy to see you with us.

Assoc. Prof. Ayhan Oral

Assoc. Prof. Arianit Reka

Chairpersons of of ISCMP 2020 Organizing Committee

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ISCMP 2020 – SCIENTIFIC PROGRAM

October 7, 2020 (Wednesday)

08:30-12:00	Registration	
09:00-09:15	Opening Remarks **Arianit Reka,** *Ph.D., Co-Chair of ISCMP 2020*	
Session A1	**Chair : Avni Berisha, Ph.D.**	
09:15-09:45	**Masami Otsuka**, *Ph.D.*	Strategic design of drug core structure - anti-fibrosis compounds arisen from restructuring of the bleomycin metal core ***(KEYNOTE SPEAKER)***
10:15-10:30	Ilir Mazreku	Effects of vitamin C and magnesium L-threonate on mice during lead intoxication
10:45-11:00	Gözde Oncel	Comparison of the effect of the reduced graphene oxide and multi-walled carbon nanotube on poly (lactic acid) / polycarbonate blends
Session A2	**Chair: Nevila Broli, Ph.D.**	
11:00-11:30	**Arben Merkoçi,** *Ph.D.*	Design and application of biosensors based on graphene-related materials ***(INVITED SPEAKER)***
11:30-11:45	Nevila Broli	An ilmenite nanoparticle-modified carbon paste electrode as a sensor for determination of propranolol and atenolol
11:45-12:00	Majlinda Vasjari	Adsorption properties of row and chemical activated nano-material derived from natural sand of Albanian coastline
12:00-13:00	Lunch	
Session B1	**Chair: Bashkim Ziberi, Ph.D.**	
13:00-13:30	**Kiril Tome Lisichkov,** *Ph.D.*	Design of contemporary green processes for water and wastewater treatment ***(INVITED SPEAKER)***
13:30-13:45	Ayşe Aytaç	Effects of aldehyde-based cross linkers on the properties of polyvinyl alcohol/sodium caseinate films
13:45-14:00	Musaj Ali Paçarizi	Investigation of the content of macro and microelements in honey and pollen from the region of Prishtina, Kosovo
14:00-14:15	Tuğba Güngör Ertuğral	Preparation and characterization of expanded graphene/polyurethane nanocomposite material for use in food cold storage
Session B2	**Chair: Musaj Paçarizi, Ph.D.**	
14:30-15:00	**Metin H. Acar,** *Ph.D.*	Thermally induced shape memory polymers ***(INVITED SPEAKER)***
15:00-15:15	Bedriye Üçpinar Durmaz	Thermal and mechanical properties of reduced graphene oxide reinforced poly(ethylene terephthalate) (PET)/(polybutylene terephthalate) (PBT) nanocomposites
15:15-15:30	Ceren Kıroğlu	Production and characterization of thermoplastic elastomer foams based on styrene-ethylene-butadiene-styrene and polypropylene
15:30-15:45	Sara Dervishi	NMR investigation of pyrogenic oxides containing ultrahigh performance concrete (UHPC)
15:45-16:00	Sezginer Tunçer	First report of distribution of and composition by qualitative and quantitative of microplastics in surface waters of the Çanakkale strait
16:00-16:15	**BREAK**	

Session C1	**Chair: Edlira Duka, Ph.D.**	
16:15-16:45	**Roohollah Bagherzadeh,** *Ph.D.*	Fiber based electronic devices and sensors ***(INVITED SPEAKER)***
16:45-17:00	Avni Berisha	A DFT and MD study on the covalent functionalization of C60 fullerene by alkyl and aryl radicals derived from diazonium
17:00-17:15	Veprim Thaçi	Experimental and theoretical study of 2,5-diarylidenecyclopentanone methoxy derivatives
17:15-17:30	Jeton Halili	Supercritical carbon dioxide extraction of the CU(II) and PB(II) ions in form of dithizone bidentate complexes: an experimental and theoretical study
17:30-17:45	Merve Kahraman	Influence of mica mineral on flame retardancy and mechanical properties of intumescent flame retardant polypropylene composites
17:45-18:00	Edlira Duka	Study on medieval iron nails found in northen Albania by XRF, SEM-EDS, OM
18:00-18:15	Makfire No Sadiku	Adsorptive removal of Cu(II) ions from aqueous solutions using natural clay - an experimental and theoretical study
18:15-18:30	Berat Latif Sinani	Online monitoring water quality with BerSiLOG 2.0.
18:30-19:30	***POSTER SESSION* AND CLOSING REMARKS***	

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October 7, 2020

NO	PRESENTER	TITLE
1	Avni Berisha	Ab initio study of the binding of aryl and alkyl radicals onto the B12N12 nanocage cluster and g-C3N4 monolayer
2	Fjolla Hashani	The use of Differential Pulse Polarography (DPP) for the in situ evaluation of the hexacyanoferrate ions adsorption onto the graphene
3	Fjolla Hashani	Adsorptive removal of the hexacyanoferrate ions using graphene oxide as an adsorbent. Experimental and theoretical study
4	Jeton Halili	Interaction energy and the geometry of complexes formed from copper and lead ions with the dithizone ligand: A DFT
5	Naile Haliti	Experimental and Monte Carlo simulation study of triazine and thiazole molecules as corrosion inhibitors of mild steel in acidic medium
6	Naile Haliti	Experimental, DFT, Monte Carlo and Molecular Dynamic simulation study of the 1,2,4-triazole as corrosion inhibitor for copper in acidic medium
7	Tuğba Güngör Ertuğral	Solid-solid phase change materials and food packaging raw material application example: Poly (polyethylene glycol-phthalate) polyester polymer
8	Merima Sirbubalo	Comparison of synthetic polymeric disintegrants mainly used for orodispersible tablets manufacturing
9	Merima Sirbubalo	Importance of polymers in the formulation of transdermal patches
10	Amina Tucak	Hollow microneedles: With microflow to therapeutic effects
11	Ognjenka Rahic	Eudragit® polymers in pharmaceutical technology - a world of possibilities
12	Ayhan Oral	Synthesis of gelatin-co-polystyrene through photopolymerization
13	Veprim Thaçi	Structure-based virtual screening studies to pinpoint the unique potential of MAC database toward the isomerase of the Plasmodium falciparum organism
14	Nazife Abdulbari Iljazi	Analysis of controlled release profiles of ketoprofen from alginate matrices
15	Musaj Ali Paçarizi	Mineralogical and geochemical characterization of mine tailings in the landfill of Artana, Kosovo
16	Hayfa Argui	Some properties of *Cupressus sempervirens* essential oils
17	Admir Omaj	The adsorptive removal of lead (II) and copper (II) ions from aqueous solution using Halloysite nanotube
18	Admir Omaj	Theoretical and experimental study of the adsorption of some heavy metals by the halloysite nanotubes
19	Bosko Dimce Boskovski	Distribution of water soluble sodium in soils around mountain road Tetovo-Popova-Akpa
20	Veton Haziri	SECM study of the formed oxygen bubbles onto Au(111)-Ph interface
21	Veton Haziri	The interaction of oxygen molecule at the Au(111)-Phenyl and Au(111)-Carboxyphenyl nano-layer interface. An experimental and Ab Initio study
22	Makfire No Sadiku	Theoretical and experimental study of the Methylene Blue adsorption onto lignite coal from Kosovo
23	Merve Danisman	Surface modification reaction of montmorillonite with enzyme catalyzed reaction

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NO	PRESENTER	TITLE
24	Rilinda Blerim Plakaj	Halloysite nanotube as an adsorbent for Ni(II) and Cd(II) ions
25	Rilinda Blerim Plakaj	Experimental and Monte Carlo studies on the adsorption of Ni(II) and Cd(II) ions on the halloysite nanotubes
26	Ardhmeri Arsim Alija	The interaction of Methylene Blue dye onto the silicon dioxide surface. Experimental and theoretical studies
27	Ardhmeri Arsim Alija	Adsorptive removal of methylene blue from aqueous solution using silicon dioxide microparticles
28	Drinisa Arsim Gashi	Removal of methylene blue from aqueous solution using silicon monoxide microparticles as adsorbent
29	Drinisa Arsim Gashi	A theoretical and experimental study to elucidate the interaction of Methylene Blue dye onto the silicon monoxide surface
30	Kaltrina Skenderi	Characterization of obsidian from North Macedonia
31	Nazan Arifoglu Sen	Evaluation of the total phenolic content and free radical scavenging capacity of almonds grown in Canakkale, Turkey
32	Melita R Hamiti	Characterization of concretion sample from Zuznje, North Macedonia
33	Hirijete Idrizi	Chemometric analysis of soil samples for forensic purposes using X-ray diffraction
34	Sefer Rexhep Avdiaj	Experimental and theoretical study of the helium and oxygen in the polyethylene terephthalate packing materials used for water and soft drinks

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Some properties of *Cupressus sempervirens* essential oils

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The aim of this study is to investigate some properties of *Cupressus sempervirens* essential oils. These oils were distilled by the method of steam distillation. The compounds of the EOs were identified by GC-MS. The antioxidant activities of the EOs of this species were investigated. Gram negative and Gram positive bacterial strains were used to assess the antibacterial properties. It was found that the *C. sempervirens* EO has notable anti-bacterial activity against *S. aureus* and *E. coli*. In the results obtained from the insecticidal effect tests, *C. sempervirens* EOs have a toxic contact effect and manifest a repulsive effect against adult *S. granarius*. These latter are optimized at a dose of 0.16 µL cm^{-2}. It was concluded that *C. sempervirens* EO can use as anti-bacterial agent against *S. aureus* and *E. coli*, and insecticide against stored grain product' pest *S. granarius*.

Keywords: *Cupressus sempervirens*, GC-MS, anti-bacterial activity, insecticidal effect