Joint Conference

8th Organic Chemistry Conference
and
4th Science & Engineering of Polymeric Materials

OCC & SEPM 2023

Organized by the

Tunisian Chemical Society

10-14 May 2023

Blue Marine Hotel, Yasmine Hammamet, Tunisia

Abstracts of Lectures and Communications
List of Participants

Saturday 13 May 2023 (Morning)				
09.00 – 09.35	**Plenary Lecture 8** **Cédric FISCHMEISTER** - Introduced by *Adel Megriche* *UR1 - UFR Sciences et Propriétés de la Matière, Université de Rennes 1, France* Homogeneous catalysis for the transformation and valorisation of biosourced compounds			
Oral Communications - Session 5				
	Room A - Chair: *Azaiez Ben Akacha* ***Organic***		***Room B -*** Chair: *Latifa Bergaoui* ***Polymer***	
	Com.	*Communicating*	*Com.*	*Communicating*
09.45 – 10.00	**OC-24A**	**LAHMADI Ghofrane** - Novel oleanolic acid-isoindolinones bearing 1,2,3-triazole moieties as potential antibacterial agents: Design and synthesis	**OC-24B**	**BAATOUT Khouloud** - Highly selective turn-on florescent chemosensor for the detection of Cr (III) ion in drinking water
10.00 – 10.15	**OC-25A**	**MNASRI Aziza** - Synthesis of N -Heterocyclic carbene-palladium-PEPPSI complexes and their catalytic activity in the direct C-H bond activation	**OC-25B**	**BELAIDI Amal** - Gamma ray irradiation induced variations in structural and electrical properties of PVP neutral polymer in water
10.15 – 10.30	**OC-26A**	**MOUHIB Ayoub** - Synthesis, spectroscopic characterization and antioxidant evaluation of novel trisubstituted cyclohexenones	**OC-26B**	**GHARBI Samar** - A new truxene-based triazole-linked porous polymer for efficient removal of dyes from water by a synergistic adsorption/photodegradation approach
10.30 – 10.45	**OC-27A**	**NEJJARI Rida** - Semisynthesis and spectroscopic characterization of new isoxazolic heterocycles based atlantones isolated from Cedrus atlantica essential oil	**OC-27B**	**HADRICH Eya** - Development of selective extraction process of hydroxytyrosol from olive tree by-products
10.45 – 11.30	**Poster Session 3 (P 67 - P 99) Alphabetical Order** **Evaluators:** Nejib Mekni, Saber Chatti			
Oral Communications - Session 6				
	Room A - Chair: *Younes Moussaoui* ***Organic***		***Room B -*** Chair: *Houcine Naili* ***Polymer***	
	Com.	*Communicating*	*Com.*	*Communicating*
11.30 – 11.45	**OC-28A**	**ORAL Ayhan** - Mirabegron loaded transdermal patch for over active bladder	**OC-28B**	**KADRI Lina** - Random polydepsipeptides based on Phenylalanine and ε-caprolactone by direct melt copolymerization
11.45 – 12.00	**OC-29A**	**OUNI Sarra** - Exploring regioselective 1,3 dipolar cycloaddition in the vinyl-triazole series: A straightforward approach to bis-heterocycles	**OC-29B**	**MOUALHI Amir** - Toward sustainable phenolic resins from biobased aldehydes using spark plasma sintering
12.00 – 12.15	**OC-30A**	**SFAR Manel** - Hepatoprotective effect against cadmium-induced liver toxicity in rats of Foeniculum vulgare seed polysaccharides	**OC-30B**	
12.15 – 12.30	**OC-31A**	**TKA Najeh** - New 2,4-bis(arylethynyl)-9-chloro-5,6,7,8-tetrahydroacridines, synthesis and photo-physical properties investigation	**OC-31B**	
13.00	***Lunch***			

Mirabegron Loaded Transdermal Patch For Over Active Bladder

Salih Can Suner[1], Eyüp Burak Sancak[2], Ayhan Oral[3*]

[1]*Science Technology Application and Research Center, Çanakkale Onsekiz Mart University, Terzioglu Campus, Çanakkale, Türkiye*

[2] *Department of Urology, ÇanakkaleOnsekiz Mart University Health Practice and Research Hospital, Çanakkale Onsekiz Mart University, Terzioglu Campus, Çanakkale, Türkiye*

[3]*Department of Chemistry, Faculty of Science, Canakkale Onsekiz Mart University, Terzioglu Campus, Çanakkale, Türkiye*

Nowadays, an overactive bladder is one of the most important diseases in the world. Traditional methods used in the treatment of this disease may be insufficient. Controlled release of drug active ingredients is an important solution to increase the effect of drugs that can be used for treatment. Transdermal patch systems is used to deliver a specific dose of medicines across the skin and into bloodstream without gastrointestinal adverse effects which in the case of oral usage of drugs.

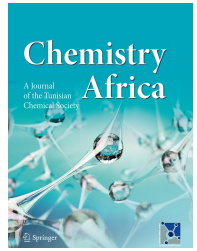
It is certain that the controlled release of Mirabegron, which is one of the most used active substances in the treatment of this disease, provides a positive effect on the treatment. In this study, the layer of the transdermal patch was prepared with a backing film, an adhesive as a drug reservoir, and a layer. Mirabegron was loaded into the transdermal patch and its release kinetics had been examined. Transdermal patches were cut 3 × 5 cm pieces with containing 9 mg and 19 mg Mirabegron and release kinetics in PBS were investigated. The surface morphology behavior was carried out by an SEM. Also, FTIR analysis was performed for the chemical structure of the drug-loaded patch.

Keywords: Transdermal Patch, Over Active Bladder, Mirabegron

Acknowledgement: This work was supported by Çanakkale Onsekiz Mart University Scientific Research Coordination Unit. Project number: FBA-2022-3896

الجمعية الكيميائية التونسية
TUNISIAN CHEMICAL SOCIETY

45 YEARS ANNIVERSARY



Joint Conferences OCC & SEPM 2023

10-14 May 2023, Blue Marine Hotel, Yasmine Hammamet, Tunisia

CERTIFICATE

The Organizing Committee of the Joint Conferences **OCC & SEPM 2023**,
8th Organic Chemistry Conference and **4th Science & Engineering of Polymeric materials** certifies that

Ayhan ORAL

presented an **Oral Communication** entitled:

Mirabegron loaded transdermal patch for over active bladder

Co-author(s) : **S. Can Suner, E. B. Sancak**

Latifa LATROUS
Latifa LATROUS
Secretary General of the TCS

Tunisian Chemical Society, Faculty of Science of Tunis, Universitary Campus, 2092 El Manar II, Tunis, Tunisia, Fax: +216 71 883 424, Web: www.sctunisie.org, Email: tcs@fst.utm.tn