

Volume 10 Issue 1 2023

Editor : Prof. Dr. Selami SELVİ
Address : Balıkesir University,
Altınoluk Vocational School, Edremit/Balıkesir, Türkiye
Phone : +90 266 396 1552
E-mail : sselvi@balikesir.edu.tr

Publisher : Prof. Dr. İzzet KARA
Address : Pamukkale University, Education Faculty,
Kinikli Campus, 20070 Denizli, Türkiye
Phone : +90 258 296 1036
Fax : +90 258 296 1200
E-mail : ikara@pau.edu.tr
ijsm.editor@gmail.com

Frequency : 4 issues per year (March, June, September, December)
Online ISSN : 2148-6905
Website : <https://dergipark.org.tr/en/pub/ijsm>

Cover Design: Merve SENTURK

International Journal of Secondary Metabolite (IJSM) is a peer-reviewed and academic online journal.
The scientific and legal responsibility for manuscripts published in our journal belongs to the authors(s).

International Journal of Secondary Metabolite

International Journal of Secondary Metabolite (IJSM) purposes the publication of articles related to secondary metabolites of plant and allied organisms (algae, fungi, and lichens). IJSM is open-access, peer-reviewed academic journal published electronically and quarterly. The journal is the goal to improve the research culture and help knowledge spread rapidly in the academic world by providing a common academic platform in the scope. The journal is published in English.

IJSM is published 4 issues per year (March, June, September, December), and accepting manuscripts related to secondary metabolites of plant and allied organisms (algae, fungi, and lichens). Research areas covered in the journal are phytochemistry, biochemistry, biotechnology, ethnopharmacology, biological and pharmacological activities (antimicrobial activity, antioxidant activity, antiulcer activity, anti-convulsant activity, anti-anxiety activity, antidiabetic activity, anti-gout activity, antiprotozoal activity, anti-inflammatory activity, antispasmodic activity, antiparasitic activity, anti-mutagenic activity, anticholinesterase activity, antidepressant activity, hepatoprotective activity, anti-anxiety activity, anti-convulsant activity, anti-spasmodic activity, anticancer activity). IJSM welcomes the submission of manuscripts that meet the general criteria of significance and scientific excellence. Authors are required to frame their research questions and discuss their results in terms of major questions in plant biology. Contribution is open to researchers of all nationalities. The following types of articles will be considered:

1. Research articles: Original research in various fields of plant and allied organisms (algae, fungi, and lichens) will be evaluated as research articles.
2. Research notes: These include articles such as preliminary notes on a study or manuscripts new records on secondary metabolites.
3. Reviews: Reviews of recent developments, improvements, discoveries, and ideas in various fields of plant and allied organisms (algae, fungi, and lichens) will be requested by the editor or advisory board.
4. Letters to the editor: These include opinions, comments relating to the publishing policy of the International Journal of Secondary Metabolite, news, and suggestions. Letters are not to exceed one journal page.

All articles accepted to the IJSM are published without charge for article submission, review or printing.

Indexes and Databases:

- SCOPUS
- TR Dizin
- EBSCOHOST databases
- MIAR (Information Matrix for Analysis of the Journals)
- SIS (Scientific Index Service) Database,
- ERIH PLUS
- CAB Abstracts
- DOAJ
- JournalTOCs
- idealonline
- ResearchBib
- CrossRef
- ASOS Index
- Index Copernicus

Editors

Dr. Selami Selvi, *Balikesir University, Türkiye*

Editorial Board

Dr. Akym Assani, *Canadian Food Inspection Agency, Canada*

Dr. Alaattin Sen, *Abdullah Gül University, Türkiye*

Dr. Bui Thanh Tung, *Vietnam National University, Vietnam*

Dr. Ebru Ataslar, *Eskisehir Osmangazi University, Türkiye*

Dr. Eyup Bagci, *Firat University, Türkiye*

Dr. Faik Kantar, *Akdeniz University, Türkiye*

Dr. Fawzi Mahomoodally, *University of Mauritius, Réduit, Mauritius*

Dr. Fethi Ahmet Ozdemir, *Bingol University, Türkiye*

Dr. Gokhan Zengin, *Selcuk Üniversitesi, Türkiye*

Dr. Gurkan Semiz, *Pamukkale University, Türkiye*

Dr. Hakan Akca, *Pamukkale University, Türkiye*

Dr. Haniyeh Bidadi, *University of Tsukuba, Japan*

Dr. Huseyin Servi, *Altinbas University, Türkiye*

Dr. Ibrahim Kivrak, *Mugla Sitki Kocman University, Türkiye*

Dr. Lucian Hriteu, *Alexandru Ioan Cuza University of Iasi, Romania*

Dr. Meriem Elaloui, *National Institute of Research in Rural Engineering, Tunisia*

Dr. Muhammad Akram, *Government College University Faisalabad, Pakistan*

Dr. Mohammad Asadi, *University of Mohaghegh Ardabili, Iran*

Dr. Namik M. Rashydov, *National Academy of Sciences of Ukraine, Ukraine*

Dr. Nazim A. Mamedov, *University of Massachusetts Amherst, USA*

Dr. Oktay Erdogan, *Pamukkale University, Türkiye*

Dr. Ozan Emre Eyupoğlu, *Istanbul Medipol University, Türkiye*

Dr. Sharad Vats, *Banasthali University, India*

Dr. Seyda Kivrak, *Mugla Sitki Kocman University, Türkiye*

Dr. Sibel Silici, *Erciyes University, Turkey*

Dr. Vahid Tavallali, *Payame Noor University, Iran*

Dr. Yesim Kara, *Pamukkale University, Türkiye*

Foreign Language Editor

Dr. R. Sahin Arslan, *Pamukkale University, Türkiye*

Dr. Hatice Altun, *Pamukkale University, Türkiye*

Latin Language Editor

Dr. Hasan Genc, *Burdur Mehmet Akif Ersoy University, Türkiye*

Table of Contents

Research Articles

[Biological activities of different plant species belonging to the Asteraceae family](#)

Page: 11-22 **PDF**

Gülşen GÜÇLÜ, Merve İNANIR, Esra UÇAR, Nuraniye ERUYGUR, Mehmet ATAŞ, Tansu USKUTOĞLU, Belgin COŞGE ŞENKAL

[Antioxidant activity, analgesic activity, and phytochemical analysis of Ammi majus \(L.\) extracts](#)

Page: 23-37 **PDF**

Otman EL-GUOURRAMI, Soufiane DRIOUA, Mouna AMEGGOUZ, Najoua SALHI, Karima SAYAH, Gokhan ZENGİN, Ahmed ZAHIDI, Anass DOUKKALI, Hanane BENZEID

[Optimization of supercritical fluid CO₂ extraction of Opoponax essential oil \(*C. erythraea*\)](#)

Page: 38-47 **PDF**

Fatih DURAK, Aydın AYDIN, Münevver SÖKMEN

[In vitro investigations of biological activities of *Thymus willdenowii* and *Thymus atlanticus* polyphenol-rich extracts](#)

Page: 48-58 **PDF**

Elbouny HAMZA, Ouahzizi BRAHIM, Sellam KHALID, Alem CHAKIB

[Promising antioxidant activity of crude extract from *Calliandra tweedii* Benth](#)

Page: 59-70 **PDF**

Kátia DOS SANTOS, Alice NAGAI, Carmen PALACIOS, Bruno EVANGELISTA, Carlos PRIANTE, Débora ZAMBAN, Claudia FURLAN

[Analysis of phytochemical composition and biological activities of *Helichrysum pallasii* \(Sprengel\) ledeb leaves](#)

Page: 71-85 **PDF**

Nejmi IŞIK, Muzaffer MÜKEMRE, Rabia Sena TÜRKER, Gokhan ZENGİN, Abdullah DALAR

[Assessment of genetic diversity based on agro-morphological traits and ISSR molecular markers in einkorn wheat \(*Triticum monococcum* ssp. *monococcum*\) landrace populations from Turkey](#)

Page: 86-105 **PDF**

Suliman ZOMMITA, Gülgez Gökçe YILDIZ, Nusret ZENCİRCİ, Özlem ÖZBEK, Ömer, Can ÜNÜVAR, Ercan Selçuk ÜNLÜ

[Interactive effects of salicylic acid and jasmonic acid on secondary metabolite production in *Echinacea purpurea*](#)

Page: 106-118 **PDF**

Fatemeh RASOLI, Manoochehr GHOLIPOOR

[Susceptibility of bacterial species isolated from mares to ozonated sunflower oil](#)

Page: 119-123 **PDF**

Gabriel Souza DOS SANTOS, Arthur Azevedo PERPÉTUO, Marcus Vinícius DIAS SOUZA

[Oxidative stress induced by fluorine in *Xanthoria parietina* \(L.\) Th. Fr.](#)

Page: 124-136 **PDF**

Ouahiba BENHAMADA, Nabila BENHAMADA, Essaid LEGHOUCI

Review Articles

[Pharmacological potential of fungal endophytes associated with the genus *Ocimum* L.](#)

Page: 1-10 **PDF**

Manikandan KARTHIKA, Avanoor Ramanathan RASMI

[A systematic review on *Hammada scoparia* medicinal plant: Phytochemicals, traditional uses and biological activities](#)

Page: 137-146 **PDF**

Chaima BENINE, Ali Boutlelis DJAHRA, Laiche AMMAR TOUHAMI, Abdelkrim REBIAI

Erratum

[Antioxidant and antimicrobial activities of methanol extracts from *Adonis paryadraca* \(Ranunculaceae\) – a critically endangered endemic species growing in the Turkish flora](#)

Page: 147-157 **PDF**

Mustafa CÜCE
