



## PREFACE

Congratulations to the authors whose articles have been published in the Indonesian Journal of Chemical Analysis (IJCA) Vol 6(1) 2023. We express our highest appreciation to the authors entrusted with publishing their research work with the Indonesian Journal of Chemical Analysis (IJCA). The articles in this issue present research results not only related to the field of analytical chemistry but also across several related studies in the field of chemistry, such as environmental chemistry, biochemistry, advanced material characterizations and pharmaceuticals, with broad potential applications.

We express our gratitude to loyal readers and to reviewers from universities and institutions in Indonesia and abroad who have taken the time to provide feedback and insights on articles submitted to the Indonesian Journal of Chemical Analysis (IJCA). The reviewers have genuinely provided constructive information and comments so that the quality of the articles and the originality of the published articles can be maintained and trusted.

We hope the articles published by the Indonesian Journal of Chemical Analysis (IJCA) can become a reference for chemistry research, mainly applied chemistry.

Yogyakarta, March 2023



# **Indonesian Journal of Chemical Analysis (IJCA)**

Ind. J. Chem. Anal.

Vol. 06, No. 01, hal. 01-96

March 2023

## **Editorials Team**

### **Editor-in-Chief:**

Ganjar Fadillah, S.Si., M.Si

Universitas Islam Indonesia

### **Editor Managing:**

Tri Esti Purbaningtias, S.Si., M.Si.

Universitas Islam Indonesia

### **Editorial Boards:**

Dr. Muhammad Yudhistira Azis, M.Si.  
Rahmat Hidayat, S.Si., M.Si.  
Bayu Wiyantoko, S.Si., M.Sc.  
Reni Banowati Istiningrum, S.Si., M.Sc.  
M. Allan Serunting, S. Pd. M.Si.  
Dian Ayu Setyorini, M.Si.  
Puji Kurniawati, S.Pd., M.Sc.  
Kuntari., S.Si., M.Sc.

Institut Teknologi Bandung  
Politeknik Negeri Lampung  
Universitas Islam Indonesia  
Universitas Islam Indonesia  
Institut Teknologi Sumatera  
Institut Teknologi Bandung  
Universitas Islam Indonesia  
Universitas Islam Indonesia

### **Administrator**

Rizal Arrosyid

Universitas Islam Indonesia

### **Published by:**

Chemical Analysis Program Study, Universitas Islam Indonesia

email : ijca@uii.ac.id

web : <http://journal.uii.ac.id/IJCA>

### **Indexed in:**



**THE EDITORS AND PUBLISHER OF IJCA THANK ALL REVIEWERS FOR THEIR VALUABLE TIME  
AND EFFORT TO REVIEW THE PUBLISHED MANUSCRIPT IN VOL. 6 NO. 1, MARCH 2023**

Prof. Dr. Suprapto DEA	Institut Teknologi Sepuluh Noverember, Indonesia
Prof. Tawfik A. Saleh	King Fahd University of Petroleum and Minerals, Saudi
Prof. Sulistyo Saputro, Ph.D	Universitas Sebelas Maret, Indonesia
Prof. B Buchari	Institut Teknologi Bandung, Indonesia
Prof. Dr. M Bachri Amran	Institut Teknologi Bandung, Indonesia
Prof. Riyanto PhD	Universitas Islam Indonesia, Indonesia
Dr. Maisari Utami	Universitas Islam Indonesia, Indonesia
Nguyen Ly Sy Phu, Ph. D	University of Science, VNUHCM, Vietnam
Nguyen Thanh Tam, Ph. D	University of Science, VNUHCM, Vietnam
Dr. Abu Masykur	Universitas Sebelas Maret, Indonesia
Dr. Noor Fitri	Universitas Islam Indonesia, Indonesia
Dr. Asih Triastuti	Universitas Islam Indonesia, Indonesia
Prof. Dr. Sayekti Wahyuningsih	Universitas Sebelas Maret, Indonesia
Dr. Tini Agustini Koesmawati	Indonesia Institute of Science, Indonesia
Lina Mahardiani, Ph.D	Universitas Sebelas Maret, Indonesia
Satya Candra Wibawa Sakti, Ph.D	Universitas Airlangga, Indonesia
Wiyogo Prio Wicaksono, M.Si.	Universitas Islam Indonesia, Indonesia
Thorikul Huda, M.Sc.	Universitas Islam Indonesia, Indonesia
Yuli Rohyami, M.Sc.	Universitas Islam Indonesia, Indonesia
Nurlatifah, M.Sc.	Kumamoto University, Japan
Kennis Rozana, M.Si.	Universitas Negeri Malang, Indonesia
Ozi Adi Saputra, M.Si.	National Taiwan University, Taiwan
Sista Werdyani, M. Biotech.	Universitas Islam Indonesia, Indonesia

**Table of contents**

No.	Title	Pages
1	<b>Antioxidant Test and Flavonoids Determination of Tuber Pakis Kinca (Nephrolepis cordifolia (L.) C. Presl)</b> <i>Samsul Hadi, Arif Subekti dan Amalia Khairunnisa</i>	01-09
2	<b>Potential of Bacillus sp. from Kebun Raya Liwa as a Producer of Indole Acetic Acid (IAA) Hormone</b> <i>Fadlina Athfin, Kusuma Handayani, Wawan A. Setiawan, dan C. Nugroho Ekowati</i>	10-20
3	<b>Production of Resistant Starch from Avocado Seeds (<i>Persea americana</i>) through Streptomyces sp. AB8 Fermentation and Autoclaving-Cooling Variations</b> <i>Achmad Arifiyanto, Siti Inah, Indah Sukma Ningsih, Christina Nugroho Ekowati, Tundjung Tripeni Handayani</i>	21-30
4	<b>The Effect of Pineapple Leaf Fiber Addition to Mechanical and Thermal Characteristics of Sago Starch Based Biofoam with Thermopressing Method</b> <i>Rozanna Dewi, Novi Sylvia, Zulnazri, Medyan Riza</i>	31-41
5	<b>Characterization of Zeolite ZSM-5 Synthesized from Kaolin and TPABr Using X-Ray Diffraction and Infrared Spectroscopy</b> <i>Abdul Hamid, Faizatur Rohmah, Tri Esti Purbaningtias, Mohammad Abdullah</i>	42-51
6	<b>Glass tube-coated TiO<sub>2</sub> nanostructure for degradation of methylene blue: an experimental and design of column photocatalytic reactor</b> <i>Rahmat Hidayat, Ganjar Fadillah, Shin-Ichi Ohira</i>	52-62
7	<b>Effect of Dolomite Addition on The Performance of Palm Oil Mill Fly Ash for Methylene Blue Adsorption</b> <i>Elda Pelita, Rita Youfa, Desniorita, Anang Baharuddin Sahaq, Miftahurrahmah, Resi Levi Permadani, Jerry</i>	63-74
8	<b>The Effect of Slip Polymer Additives on the Characteristics of Polyethylene Films</b> <i>Putri Intan Puspa Ningrum, Ani Mulyasuryani, Rakhma Febriani</i>	75-84
9	<b>Synthesis of Ni doped-TiO<sub>2</sub> Thin Film Photocatalysts on Glass Surfaces</b> <i>Margareta Caroline Harunrasjid, Anthoni Batahan Aritonang, M. Agus Wibowo, Puji Ardiningsih, Adhitiyawarman</i>	85-96