

THE 5th INTERNATIONAL CONFERENCE ON SCIENCE

IC05 2022

MAKASSAR, 27-28 MAY 2022

"DEVELOPMENT IN SCIENCE AND TECHNOLOGY TOWARDS BETTER QUALITY OF LIFE"

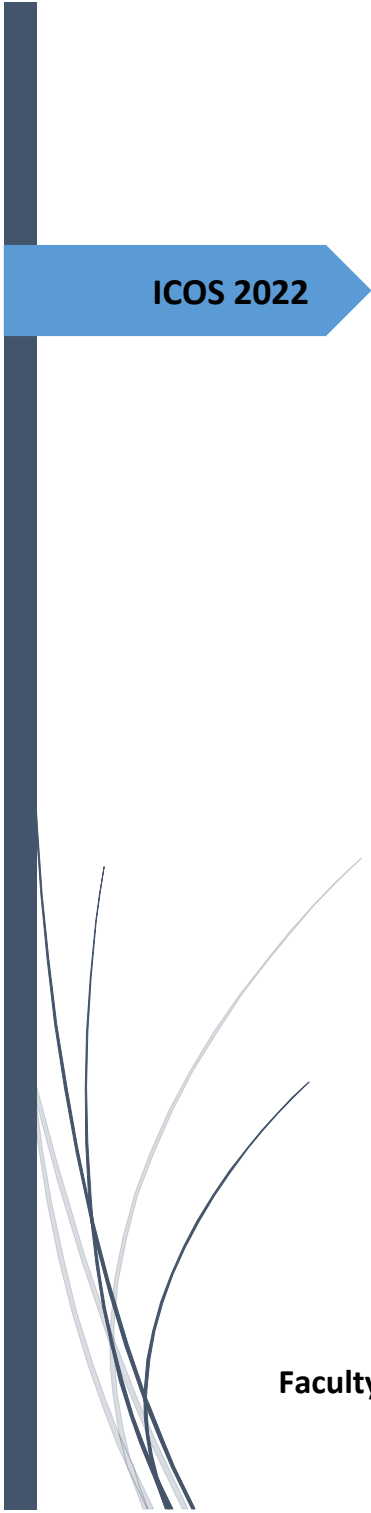
BOOK OF ABSTRACTS

Faculty of Mathematics and Natural Sciences
Universitas Hasanuddin



MOLEKUL

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A thick dark blue vertical bar runs down the left side of the page. A blue arrow-shaped banner points to the right from this bar, containing the text 'ICOS 2022'. Below the banner, several thin, curved lines in shades of blue and grey sweep upwards and to the right, creating an abstract, organic shape.

ICOS 2022

The 5th International Conference on Science

Makassar, 27-28 May 2022

**Faculty of Mathematics and Natural Sciences
Hasanuddin University**

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Invitation

Dear colleagues,

On behalf of the organizing committee, we would like to welcome you in Makassar and we invite you to participate the next International Conference on Science (ICOS 2022) that will be held at the Hasanuddin University 27-28 May 2022. We hope you will contribute to a successful conference. You can register online on the website of the conference, as well as submit your contributions for oral presentations at the session of your choice.

This is the 5th ICOS conference, and it will cover all branches of mathematics and science. More details about the scope, topics, travelling, accommodation, registration deadlines and fees can be found at the conference website at <http://icos.sci.unhas.ac.id>. We look forward to see you in Hasanuddin University at the end of May 2022.

The conference includes plenary lectures of invited speakers and parallel sessions. The main topics of the conferences are the following:

- Actuarial Science
- Artificial Intelligence
- Big data
- Bioinformatics
- Bioscience
- Chemistry
- Computational Science
- Data Science
- Environmental Science
- Science Education
- Material Science
- Mathematics
- Physics
- Statistics

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Heryanto, S.Si., M.Si
Andi Muhammad Anwar, S.Si., M.Si
Andi Tenri Sa'na, S.Si., M.Si

List of Plenary Lectures

Professor Ian Young, The University of Melbourne
(The Global Distribution of Extreme Value Significant Wave Height)

Professor Magda Titirici, Imperial College London
(Sustainable Energy Materials)

Professor Erin P. Riley, San Diego State University
(Roadside monkeys: anthropogenic effects on moor macaque
(*Macaca maura*) ranging behavior in Bantimurung Bulusaraung
National Park, Sulawesi, Indonesia)

Professor Dahlang Tahir, Hasanuddin University
*(Continuous Improvement to Find Excellent Electromagnetic Wave
Absorption of Composite Activated Carbon-Based: Modification
Electronic, Optical, Structural, and Magnetic Properties)*

Assoc. Prof. Satoshi Okano Ph.D, Ehime University
*(Current status of bone substitute materials and my research
introduction)*

Plenary Lecturer 1. Professor Ian Young



Professor Ian Young obtained his Bachelor's Degree (Hons) in Civil Engineering, Master of Engineering Sciences in Coastal Engineering and PhD in Ocean Engineering from James Cook University.

He holds the position of Kernot Professor of Engineering at the University of Melbourne as well as a number of business roles including: Chair of the Board of VERNet Pty Ltd, Executive Chair of PAL Digital Pty Ltd, Chief Executive of Conviro Pty Ltd and President of CloudCampus Pty Ltd. He was previously the Vice-Chancellor and President of The Australian National University (ANU), a position he held until his retirement in February 2016.

Prior to joining ANU, Professor Young held the position of Vice-Chancellor at Swinburne University of Technology (2003 – 2011), the dual positions of Executive Dean of the Faculty of Engineering, Computer and Mathematical Sciences and Pro Vice-Chancellor (International) at the University of Adelaide, as well as positions at the University of New South Wales, James Cook University (JCU), and the Max Planck Institut für Meteorologie, Germany.

Professor Young has published more than 100 journal papers, 80 refereed conference papers and is author of 3 books. As a result of his research interests, he has been Chair of the United Nations International Waves in Shallow Environments Group, and a technical advisor to the US Navy and NASA.

He is an Honorary Fellow of the Institution of Engineers, Australia, and a Fellow of the Academic of Technological Sciences & Engineering. In 2003, he was awarded a Centenary Medal for services to Australian society, and in 2012 he was appointed an Officer in the General Division of the Order of Australia.

Plenary Lecturer 2. Professor Magda Titirici



Professor Magda Titirici received her PhD in Materials Chemistry from University of Dortmund in Germany. She then joined the Max-Planck Institute of Colloids and Interfaces as a Postdoctoral Fellow and later become a Group Leader, starting her independent research on sustainable carbon materials in 2006.

Professor Magda received her Habilitation in 2013 from University of Potsdam/Max-Planck Institute. She then moved to UK, to Queen Mary University of London as a Reader in Materials Science and in 2014 she was promoted to Full Professor. She moved

to Imperial College London in January 2019 to take up a Chair in Sustainable Energy Materials.

Professor Magda is the author of over 250 articles and is included in the Global Highly Cited Researchers (Clarivate Analytics) over the past four years. She is the author of 13 book chapters and one book. She also holds 7 patents. She has received the Rosenhein Medal from IoM3, an Honorary PhD from University of Stockholm in 2017, the Chinese Academy of Science President Fellowship, the Royal Society of Chemistry Corday-Morgen prize in 2018 and a Royal Academy of Engineering Chair in Emerging Technologies fellowship in 2019.

Her current research interests involve sustainable materials with focus on carbon and carbon hybrids produced via hydrothermal processes, waste recycling into advance products, avoidance of critical elements in renewable energy technologies and the development of truly sustainable clean energy storage and conversion paths including alternative chemistries beyond Li, flexible and structural supercapacitors made from lignin/cellulose, carbon-based O₂ electrocatalysis, CO₂ capture and conversion and exploring the optoelectronic properties of nanocarbons. Her research is supported by UKRI, EU, Royal Society, Royal Society of Engineering, and Industry.

Plenary Lecturer 3. Professor Erin P. Riley



Professor Erin P. Riley is a Professor in the Department of Anthropology at San Diego State University where she teaches and mentor undergraduate and graduate students. As an anthropologist, she is interested in the multifaceted ways human and nonhuman primate histories, ecologies, lives, and livelihoods intersect. As such, most of my research falls within the realm of ethnoprimateology. Ethnoprimateology, the study of human-nonhuman interconnections, was first coined by ecological anthropologist Leslie Sponsel who

envisioned a fruitful space where primate ecology and human ecology could come together. Her work focuses primarily on the interface between humans and macaque monkeys (*Macaca spp.*) and draws from primate ecology, conservation biology, environmental anthropology, and multispecies anthropology. Her recent research has been funded by the Wenner Gren Foundation, National Geographic Society/Waitt Foundation, the American Institute for Indonesian Studies, and San Diego State University.

She is committed to advancing ethically informed field primatology and played a leading role in developing the 2014 Code of Best Practices for Field Primatology that has been approved by the American Society of Primatologists and the International Primatological Society.

She is also a member of two sections of the IUCN Species Survival Commission Primate Specialist Group: the regional section for Southeast Asia and the Section for Human-Primate Interactions. From 2018 – 2020, she served as Treasurer on the Board of Directors for the American Society of Primatologists (ASP). The ASP is an educational & scientific society devoted to expanding our knowledge about nonhuman primates and advancing their conservation. She is currently serving on the newly formed Diversity, Equity, and Inclusion committee for the ASP. She also joins the Editorial Board of the American Journal of Primatology (AJP) – the top-ranked journal in primatology (2020 impact factor: 2.371).

Plenary Lecturer 4. Profesor Dahlang Tahir



Profesor Dahlang Tahir's field is material physics, which can be both synthetic materials, and biomaterials. Synthesis materials; from transition metal and their oxide, transparent conductive oxide, and polymer. Electronic and optical properties analyzed by using XPS and REELS spectroscopy. New topic such as Biomaterials that has been developed. Use of natural materials as activated carbon from coconut shell as supercapacitor material which can be observed molecular and structure properties by using FTIR and XRD.

His disciplines are around of Condensed Matter Physics, Materials Physics, and Materials Science. The activity on his research is focused to Photocatalyst, Microwave absorption Material, Shielding, Apron, Bioplastic and Self Consistent Field. In 2021-2022, he published 33 articles with the research focus mentioned before.

His recent articles in 2022:

Synergistic Effect of Chitosan and Activated Carbon (AC) in Suppressing Recombination Charge of Composite $\text{Ca}_2\text{Fe}_2\text{O}_5$ - AC/Chitosan for High Photodegradation of Fipronil Wastewater

Journal of Polymers and the Environment, 1-12

Effect of Magnesium (Mg) to the Optical and Absorption Gamma-Ray Properties of Composite Shield Cassava Starch/ Fe_3O_4 /Mg

Radiation Physics and Chemistry 191, 109843

Review effect of various types of dyes and structures in supporting performance of dye-sensitized solar cell TiO_2 -based nanocomposites

International Journal of Energy Research 46 (2), 726-742

Composites Bioplastic Film for Various Concentration of Zinc Oxide (ZnO) Nanocrystals Towards Physical Properties for High Biodegradability in Soil and Seawater

Journal of Polymers and the Environment, 1-13

Green synthesis ZnO/TiO₂ for high recyclability rapid sunlight photodegradation wastewater

MRS Advances, 1-6

Synergistic Effect of Chitosan and Activated Carbon (AC) in Suppressing Recombination Charge of Composite Ca₂Fe₂O₅– AC/Chitosan for High Photodegradation of Fipronil Wastewater

Journal of Polymers and the Environment

Plenary Lecturer 5. Assoc. Prof. Satoshi Okano Ph.D



Dr. Satoshi Okano is an assistant professor at Department of Materials Science and Biotechnology, Graduate School of Science and Engineering, Ehime University.

He received a Doctor Engineering from Ehime University for a thesis entitled; “Study of Photocatalytic

Titania” under the direction of Prof. Toshiro Tanaka in 2009.

There are many honors and awards he received even in pandemic era such as:

- Best presentation award of Institute of Electrical Engineers of Japan, 2020
- Best Poster Award of 7th field in the Japan Institute of Metals and Materials, 2021
- Achievement Award of Japan Institute of Light Metals (Chugoku-Shikoku branch), 2022
- Best Poster Award of the Japan Institute of Metals and Materials, 2022

His research focused on material science specially material made from Titania metal, it was implied from his recent research articles below.

- “Nanotube formation on Ti-15Zr-4Nb-4Ta by anodic oxidation” Satoshi Okano, Masayuki Mori, Sengo Kobayashi and Takeaki Okamoto, Material Science Forum, 985 (2020) 69-73
- “Effect of Surface Treatments on Wettability of Nacre” Andi Muhammad Anshar, Sengo Kobayashi and Satoshi Okano, Material Science Forum, 985 (2020) 86-90
- “Effects of Oxygen and Nitrogen Addition on Phase Transformation in Ti-10at%V” Sengo Kobayashi, Ryohei Fukushima, Shiki Go and Satoshi Okano, Material Science Forum, 985 (2020) 80-85.

ROUND DOWN
Friday, May 27th 2022

Time	Schedule	
07.30 - 08.00	Registration	Committee
08.00 – 08.45	Opening by MC	MC
	National Anthem	
	Chairman Speech	Dr. Sci. Muhammad
	Opening Speech	
	• Rector of Unhas	• Prof. Dr. Ir. Jamaluddin Jompa
08.45 - 09.00	Break	
09.00 - 11.00	Plenary Session	Prof. Erin P. Riley (Moderator: Dr. Syaribulan, M.Si.)
		Assoc. Prof. Satoshi Okano, Ph.D (Moderator: Andi Muhammad Anshar, M.Si)
11.00 - 13.00	Lunch and Pray	
13.30 - 15.30	Plenary Session	Prof. Ian Young (Moderator: Agustinus Ribal, M.Sc. Ph.D.)
		Prof. Dahlang Tahir (Moderator: Prof. Paulus Lobo Gareso, Ph.D
15.30 - 16.00	Break and Pray	
16.00 - 17.00	Announcement	

ROUND DOWN
Saturday, May 28th 2022

Time	Schedule	
08.00 – 08.30	Registration	Committee
08.30 – 10.00	Parallel Session (1)	Room 1 – 7
10.00 – 10.30	Break	
10.30 – 12.00	Parallel Session (2)	Room 1 – 7
12.00 - 13.30	Lunch and Pray	
13.30 – 15.00	Parallel Session (3)	Room 1 – 7
15.00 – 16.00	Plenary Session	Prof. Magda Titirici (Moderator: Prof. Dr. Paulina Taba, M.Phil.)
16.00 – 16.30	Closing	Dean of FMIPA Unhas

SCHEDULE OF PARALLEL SESSION

DAY 2

SATURDAY, MAY 28th, 2022

MAXONE HOTEL MAKASSAR

Time	Room 1	Room 2	Room 3
	Chemistry	Geophysics	Bioscience
08.30-08.40	Chem001	Geo001	Bio001
08.40-08.50	Chem002	Geo002	Bio002
08.50-09.00	Chem003	Geo003	Bio003
09.00-09.10	Chem004	Geo004	Bio004
09.10-09.20	Chem005	Geo005	Bio005
09.20-09.30	Chem006	Geo006	Bio006
09.30-09.40	Chem007	Geo007	Bio007
09.40-09.50	Chem008	Geo008	Bio008
09.50-10.00	Chem009	Geo009	Bio009
Moderator	Syadza Firdausiah, M.Sc	Muh. Fawzy Ismullah M, M.T	Dr. Nur Asmi, S.Si
10.00-10.30	Break		
	Chemistry	Geophysics	Bioscience
10.30-10.40	Chem010	Geo010	Bio010
10.40-10.50	Chem011	Geo011	Bio011
10.50-11.00	Chem012	Geo012	Bio012
11.00-11.10	Chem013	Geo013	Bio013
11.10-11.20	Chem014	Geo014	Bio014
11.20-11.30	Chem015	Geo015	Bio015
11.30-11.40	Chem016	Geo016	Bio016
11.40-11.50	Chem017	Geo017	Bio017
11.50-12.00	Chem018	Geo018	Bio018
Moderator	Dr. Herlina Rasyid, S.Si	Saaduddin, M.Sc	Meidistria Tandi Rapak, S.Si, M.Sc
12.00-13.30	Break		
	Chemistry	Geophysics	Chemistry, Physic
13.30-13.40	Chem019	Geo019	Chem024

13.40-13.50	Chem020	Geo020	Chem025
13.50-14.00	Chem021	Geo021	Chem026
14.00-14.10	Chem022	Geo022	Chem027
14.10-14.20	Chem023		Chem028
14.20-15.00	Bio019		Physic001
Moderator	Dr. Nur Umriani Permatasari, M.Si	Saaduddin, M.Sc	Andi Muhammad Ansar, M.Si

Time	Room 4	Room 5	Room 6	Room7
	Material Science	Actuaria, AI, Bioinformatic	Mathematic	Statistic
08.30-08.40	Matr001	ActSc001	Math001	Stat001
08.40-08.50	Matr002	ActSc002	Math002	Stat002
08.50-09.00	Matr003	ActSc003	Math003	Stat003
09.00-09.10	Matr004	ActSc004	Math004	Stat004
09.10-09.20	Matr005	ActSc005	Math005	Stat005
09.20-09.30	Matr006	AI001	Math006	Stat006
09.30-09.40	Matr007	AI002	Math007	Stat007
09.40-09.50	Matr008	Blnf001	Math008	Stat008
09.50-10.00	Matr009	Blnf002	Math009	Stat009
Moderator	Andi Muhammad Ansar, S.Si M.Si	Muh. Sadno, S.Si, M.Si	Dr. Kasbawati, M.Si	Dr. Georgina Maria Tinungki, M.Si
10.00-10.30	Break			
	Material Science, Physics	Big Data, Comp. Sci, Data Sci.	Mathematic, Statistic	Environ. Science
10.30-10.40	Matr010	Bigdt001	Math010	Env001
10.40-10.50	Matr011	Bigdt002	Math011	Env002
10.50-11.00	Matr012	Bigdt003	Math012	Env003
11.00-11.10	Matr013	Comp001	Math013	Env004
11.10-11.20	Matr014	Comp002	Stat010	Env005
11.20-11.30	Matr015	Comp003	Stat011	Env006

11.30-11.40	Matr016	Datsc001	Stat012	Env007
11.40-11.50	Physic002	Datsc002	Stat013	Env008
11.50-12.00	Physic003		Stat014	Env009
12.00-12.10				Env010
Moderator	Heryanto, M.Si	Illuminata Wynnie, M.Si	Muh. Sadno, M.Si	Andi Evi Erviani, M.Si
13.30-15.00				

1. Actuarial Science (Code: ActSc)				
No.	ID	Name	Institution	Page
1	ActSc001	D. R. Tampubolon, R. Pratama and A. Y. Gunawan	Institut Teknologi Bandung	11
2	ActSc002	Muhammad Achirul Nanda	Universitas Padjadjaran	13
3	ActSc003	Andzar Syafa'atur Rahman	University of Indonesia	14
4	ActSc004	Mardhan Nurul Imam, Zainal, Sitti Nur Faridah, Abdul Waris	Hasanuddin University	15
5	ActSc005	Utriweni Mukhaiyar, Rana Amani Desenaldo	Institut Teknologi Bandung	16

2. Artificial Intelligence (Code: AI)				
No.	ID	Name	Institution	Page
1	AI001	K. Amron, W M Kusumawinahyu, S Anam and W. F. Mahmudy	Universitas Brawijaya	18
2	AI002	Yudhi Nugraha, Nur Arifin Akbar, Yogi Ertanto, Andri P Pramono	Universidad de Murcia C. Campus Universitario; Univeristas Pembangunan Nasional	19

3. Big Data (Code: Bigdt)				
No.	ID	Name	Institution	Page
1	Bigdt001	Halmar Halide, Andika, and Putri Wulandari	Universitas Hasanuddin, Institut Teknologi Bandung	21
2	Bigdt002	Utriweni Mukhaiyar, Muhammad Lutfi Wijaya, Metra Volisa, Sandy Vantika, and Gantina Rachmaputri	Institut Teknologi Bandung	22
3	Bigdt003	Rizal Mansur, Athor Subroto	University of Indonesia	23

4. Bioinformatic (Code: Binf)				
No.	ID	Name	Institution	Page
1	BInf001	Siswanto and N H A Syahrir	Hasanuddin University	25
2	BInf002	E S Rusdi and N H A Syahrir	Hasanuddin University	26

5. Bioscience (Code: Bio)				
No.	ID	Name	Institution	Page
1	Bio001	Mukriani, Nur Asmi, Harningsih Karim, Muh Nasrum Massi, Prihantono, Ahyar Ahmad	Hasanuddin University	28
2	Bio002	A. A. Wulandari, A. D. Aditya, J. Tahir, A. M. R. Pratama, I. Handayani, N. Hidayah, H. Halik, and M. N. Massi	Hasanuddin University; Universitas Mega Rezky	29
3	Bio003	H. A. Amanah, R. Sjahril, F. Haring and S. H. Larekeng	Hasanuddin University; Universitas Muhammadiyah Bone	30
4	Bio004	M. M. Mehdi, A. Ahmad, M. Zakir, P. Taba and S. Rida Zahra Naqvi	Hasanuddin University; Northwestern Polytechnical University (NPU); Ghazi University	31
5	Bio005	Eka Sukmawaty, Hafsan, Ahyar Ahmad, Devi Armita, Siti latifa Wulandari	Hasanuddin University Universitas Amal Ilmiah Yapis Wamena	32
6	Bio006	Y. Abdulwahab, A. Ahmad, I. Wahid, P. Taba	Hasanuddin University; Taiz University	33
7	Bio007	Kevin, Arief Widjaja	Sepuluh Nopember Institute of Technology	34
8	Bio008	Brilian Pamungkas, Setiyo Gunawan, Hakun W. Aparamarta	Institut Teknologi Sepuluh Nopember Surabaya	35

9	Bio009	Sjafaraenan, Eva Johannes, Herwin, Mustika Tuwo	Universitas Hasanuddin; Universitas Muslim Indonesia	37
10	Bio010	Rizki Rahmadian, Benni Raymond, Muhammad Ihsan, Maharani Safitri, Nur Elida, Suci Venitasya, Popy Ayu Namira	Andalas University; Biomolecular Research Center; Andalas University	38
11	Bio011	F. Fahrudin, A. Abdullah, M. Tuwo, and A. Tansi	Hasanuddin University	39
12	Bio012	Nilu Langsari, Itji Diana Daud, Melina	Hasanuddin University	40
13	Bio013	Andi Ernawati, Moch.Hatta, Isra Wahid, Syahribulan	College of health sciences YAPIKA; Hasanuddin University;	41
14	Bio014	Ambeng, Agus Rahman Eka Putra Abas, Taufik Ahmady, Muhammad Ruslan Umar, Ilham, Muhammad Al Anshari	Hasanuddin University; PT. ANTAM Tbk. UBPB Sulawesi Tenggara; IPB University; Celebes Biodiversity Centre	43
15	Bio015	F. Fahrudin, E. Tambaru, M. Tuwo, and R. Ali	Hasanuddin University	44
16	Bio016	Elis Tambaru, Alfiyah Mutmainnah , Andi Masniawati, Resti Ura', Mustika Tuwo	Hasanuddin University; Institute of Manokwari	45
17	Bio017	Muhammad Iqram, Lusiana, Meizalfa Fathyah, Ambeng, Muhammad Ruslan Umar	Hasanuddin University	46
18	Bio018	Risma Illa Maulany, Andi Dara Caesaria Kinanti, Nasri Nasri, Putu Oka Ngakan	Hasanuddin University	47

19	Bio019	Asmiaty Sahur, Nurfaikah, Rusnasi Padjung, Nasaruddin	Hasanuddin University	48
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6. Chemistry (Code: <i>Chem</i>)				
No.	ID	Name	Institution	Page
1	Chem001	Sulfitriani Nahrin, Maming Gappa, Muhammad Zakir	Hasanuddin University	50
2	Chem002	Sarni, AW Wahab, H Natsir, N La Nafie	Hasanuddin University Baubau Polytechnic	51
3	Chem003	Abdul Karim, Ahyar Ahmad, Aisyah Rusdin	Hasanuddin University; Insitute of Science and Health Bone	52
4	Chem004	Artati, A. Ahmad, A. Karim, S. Fajriah, H Karim, Nuradi, A. Nur, U. Zahra	Hasanuddin University; Health Polytechnic of Makassar; Indonesian Institute of Science, Puspiptek Serpong; School of Pharmacy Yamasi Universitas Islam Negeri Alauddin Makassar	53
5	Chem005	Jumardi, Rugaiyah A. Arfah, Nur Umriani Permatasari, Ahyar Ahmad, Firdaus Zenta, Nursiah La Nafie	Hasanuddin University;	54
6	Chem006	Nurul Amaliah, Firdaus, Nunuk H. Soekamto	Universitas Hasanuddin,	55
7	Chem007	Syamdeni, Nursiah La Nafie, Paulina Taba	Hasanuddin University	56
8	Chem008	Mira Khaerunnisa, Rugaiyah A. Arfah, Nur Umriani Permatasari, Nunuk Hariani Soekamto,	Hasanuddin University	57

		Syarifuddin Liong, Siti Fauziah		
9	Chem009	Triana Febrianti, Abdul Wahid Wahab, Abdul Karim, Nuritasari Azis	Hasanuddin University	58
10	Chem010	N. Azis, A. W. Wahab, A. Karim, T. Febrianti	Hasanuddin University	59
11	Chem011	Inal Iqbal, Hasnah Natsir, Seniwati Dali, Abdul Wahid Wahab, Nunuk Hariani Soekamto, Yusafir Hala	Hasanuddin University	60
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Plenary Lectures

Effectiveness of Active Compounds From Hydroid *Aglaophenia cupressina* Lamoureaux Against Toxicity of p53 Gene in HeLa Tumor Cells

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Abstract

Hydroids belong to Coelenterata phylum and are marine invertebrate living attaching to sponges, rich in chemical compounds such as: alkaloids, steroids, terpenoids, and histamine. The compounds produced by these organisms can be utilized as medicines raw materials, such as antimicrobials and anticancer. This study aims to investigate the working mechanism of active compounds from extract and n-hexane fraction of hydroid *A. cupressina* Lamoureaux against toxicity and apoptosis of p53 genes expression in HeLa tumor cells. Isolation and characterization of compounds from hydroid used experimental method with the following steps: extraction, isolation, purification and structure elucidation. Apoptosis was induced by methyl thiazole tetrazolium assay method. Study findings indicated that the tested compounds from hydroid *Aglaophenia cupressina* Lamoureaux had cytotoxic activities against HeLa tumor cells, with very active category as anticancer according to the value of HeLa tumor cell growth inhibition for 50% (IC₅₀) was 0.31726 µg/mL for extract and 0.32712 µg/mL for fraction.

Keywords: Bioactive compounds, Cytotoxic, HeLa tumor cells, Hydroid



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