STAFF HANDBOOK

Mencerdaskan dan
Memartabatkan Bangsa

Chemistry Education Program
Faculty of Mathematics and Natural Sciences
Universitas Negeri Jakarta
2021

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
UNIVERSITAS NEGERI JAKARTA
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
PRODI PENDIDIKAN KIMIA
Kampus A, Gedung Hasjim Asj'arie Rawamangun, Jakarta Timur 13220
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STAFF HANDBOOK

Name	**Dr. Agung Purwanto, M.Si.**
Position	Lecturer in Chemistry Education
Academic Career	1. Bachelor's degree (Chemistry), Universitas Gajah Mada, Indonesia, 1989 2. Master's degree (Chemistry), Universitas Gajah Mada, Indonesia, 1998 3. Doctoral degree (Population and Environmental Education), Universitas Negeri Jakarta, Indonesia, 2012
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	1. Development of Time-Based Learning Models Through Food Chemistry Knowledge Materials (Year 1),2014 2. Effect of Environmental Education Learning Packages and Cognitive Styles on The Ability to Solve Environmental Problems, 2012 3. The Effect of Students Cognitive Style on Students Ability in Solving Environmental Values Education, 2012 4. The Effect Of Teaching Strategies And Cognitive Styles On Students Ability In Solving Environmental Problems, 2012 5. Evaluation of Educational Quality Trends, 2011 6. Formulation of Kitosan-Protein Beeswax Nanocomposite and Utilization Test as a Factory Packer, 2011 7. Development of Chemical Learning Modules Through The Application of Professional Learning Community Programs, 2010 8. Development of Effective Chemical Practicum Kits Through the Implementation of Professional Learning Community (PLC) Programs to Improve the Quality of Learning in High School, 2009 9. Secondary Metabolic Identification and Antibacterial Test of Sarcophyton Cinereum Soft Coral Extract against Salmonella Typhi Growth, 2009 10. Department Readiness in Facing SBI, 2009 11. Development of Integrated Teaching Book Model with Drug Materials for High School level, 2007 12. Science Teaching Materials Development Integrated with Drug Materials to Overcome Drug Abuse Among Students, 2006

	13. Student Worksheet Development and High School Chemistry Teacher Guide Book Based on Contextual Learning Approach, 2005		
Industry collaboration/Community service over the last 5 year	1. Preparation of General Guidelines for Education and Cultural Research and Development Network, Balitbang Kemendikbud, 2013-2014 2. Preparation of Academic Manuscript of Institutional Strengthening of BAN-PT, 2014 3. Improving the Quality of Chemical Education at MGMP-SMA East Jakarta. (Development and Application of SCIENCE AND TECHNOLOGY to the Community), 2013 4. Supervisor on the Selection of Candidates for Civil Servants of the Audit Board, 2009 5. UMB-PTN 2009 Location In Charge (Jakarta Local Committee), 2009 6. Companion of the Study Program Team in Quality Determination and Benchmarking Study Program, June 2 to July 31, 2008. (Based on the Letter of Duty of the Chairman of the Quality Assurance Agency UNJ, No. 94/ST/2008) 7. Empowerment of Adolescents Drops Out of School in RW 016 Kaliabang Village Central Bekasi Utara Through Water Proofing Training, 2008 8. Supervisor on the Selection of Candidates for Civil Servants of the Audit Board, 2008 9. Application of Integrated Teaching Materials Model with Drug Materials to Overcome Drug Abuse Among Students, 2007 10. UN Independent Monitoring Team 2006/2007 Regency/Municipality of East Jakarta, 2007 11. Head of Social Affairs in the structure of the Mosque Manager "Nuruul Irfaan" UNJ, based on the Decree of the Rector of UNJ No. 131 / SP / 2005		
Patents and proprietary rights	-		
Important publications over the last 5 years	1. Analysis of students' scientific literacy in contextual-flipped classroom learning on acid-base topic, *Journal of Physics: Conference Series, 2019* 2. Adsorption of Pb (II) using silica gel composite from rice husk ash modified 3-aminopropyltriethoxysilane (APTES)-activated carbon from coconut shell, *AIP Conference Proceedings,* 2017 3. Synthesis and adsorption of silica gel modified 3-aminopropyltriethoxysilane (APTS) from corn cobs against Cu (II) in water, Jurnal Pendidikan Lingkungan dan Pembangunan Berkelanjutan*, 2017*		
Activities in specialist bodies over the last 5 years	Organization	Role	Period
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Name	**Dr. Achmad Ridwan, M.Si.**
Position	Lecturer in Chemistry Education
Academic Career	1. Bachelor's degree (Chemistry Education), IKIP Jakarta, Indonesia 2. Master's degree (Physical Chemistry), Universitas Gajah Mada, Indonesia 3. Doctoral degree (Educational Research and Evaluation), Universitas Negeri Jakarta, Indonesia
Employment	Lecturer, Master's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	1. Development of Cycle Learning Model Based on Brain Based Learning to Overcome Student Misconceptions in Chemical Learning, 2018 2. Analysis of Misconceptions of Prospective Chemistry Teacher Students on The Concept of Acid Bases: Laboratory Jargon, 2018 3. Development of Students' 21st Century Skills Through Student Mobility in International Multidisciplinary Project Based Learning, 2017 4. Student Character and Cultural Identity Development Through Ethnochemi Integrated Culturally Responsive Teaching Learning Model Integrated with Ethnochemistry, 2017-2018 5. 21st Century Skills Development Through STEAM Learning Models (Science, Technology Engineering, Art, and Mathematics) on Chemistry Learning, 2017-2018 6. Development of Multicultural-Based Chemical Learning Strategies Based on Mental Analysis of Student Models With Differences in Cultural Background, 2016 7. Mental Model Analysis of Prospective Chemistry Teachers in Chemistry Curriculum Study Courses, 2016 8. Development of Socio-Critical and Problem Oriented Based Chemistry Learning Model as An Effort to Develop Students' Soft Skills in Chemical Learning, 2015 9. Development of Green Chemistry Course Design, Curriculum, and Materials Teaching Using The Foundation of

<table>
<tr><td></td><td colspan="3">Tranformative Learning and Education as Sustainability, 2014</td></tr>
<tr><td>Industry collaboration over the last 5 year</td><td colspan="3">1. Culture-Based Learning Training in Serang, 2018
2. Class Action Research Research Training in Tanjung Pandang Village, Belitung, 2106
3. Curriculum 2013 Learning Model Research Training in Wonosobo, 2015
4. Community Service Department of Chemistry UNJ in Pramuka Island, Kepulauan Seribu Administrative District, 2014
5. Detection of Synthetic Dyes (Rhodamine B and Methanyl Yellow) in Food and Counseling Hazards for Public Health in Mothers of Al-Manah Haji Ten Kindergarten Foundation, East Jakarta, 2013
6. Community Service Department of Chemistry UNJ in Pramuka Island, Kepulauan Seribu Administrative District, 2013
7. Raising the Funds for the Komite Bersama Peduli kemanusiaan (KBPK)/Joint Committee for Humanitarism, Perth, Western Australia, 2006-2013
8. Community Service Department of Chemistry UNJ in Pramuka Island, Kepulauan Seribu Administrative District, 2014</td></tr>
<tr><td>Patents and proprietary rights</td><td colspan="3">1. Model-model Pembelajaran Kimia Berbasis Karakter, 2017
2. Pendekatan Pembelajaran Kimia Berbasis Budaya dan Karakter: Culturally Responsive Teaching Terintegrasi Etnokimia, 2017
3. Keterampilan Abad 21 dan STEAM (Science, Technology, Engineering, Art and Mathematics) Project dalam Pembelajaran Kimia, 2017
4. Pedoman Pengembangan PCK Guru kimia, 2017
5. Mental Model dan Miskonsepsi dalam Pembelajaran Kimia, 2017</td></tr>
<tr><td>Important publications over the last 5 years</td><td colspan="3">1. STEAM Integration in Chemistry Learning for Developing 21st Century Skills, MIER Journal of Educational Studies, Trends and Practices (Thomson Router Index), 2018
2. Integration of a Socio-Critical and Problem- Oriented Approach in Chemistry Learning for Students' Culture Identity Development, MIER Journal of Educational Studies, Trends and Practices (Thomson Router Index), 2017
3. Dilemmas Story Teaching in Science Learning: A Promise for Developing Students' Culture Identity through Critical Thinking and Deep Learning, International Conference Proceeding, International Seminar on Mathematics, Science and Computer Science Education, 2013</td></tr>
<tr><td rowspan="2">Activities in specialist bodies over the last 5 years</td><td>Organization</td><td>Role</td><td>Period</td></tr>
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Name	**Arif Rahman, M.Sc**
Position	Lecturer in Chemistry Education
Academic Career	1. Bachelor's degree (Chemistry), Universitas Gajah Mada, Indonesia, 2003 2. Master's degree (Inorganic Chemistry), Universitas Gajah Mada, Indonesia, 2008
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	1. Morphological, Mechanical, and Thermal Characterization Studies Thermoplastic-Lignocellulose Hybrid Nanocomposite Based Local Clay, 2006 2. Synthesis and Characterization of TiO2(Ag^{+})-Natural Zeolite and Its Applications for Antibacterial and Antifungal Coating, 2008 3. Synthesis of Magnetite Montmorillonite from Indonesian Iron Ore and Its Application for High-Performance Adsorbent, 2009 4. Functionalization of Batik Cloth Surfaces Using Nano-Sized TiO_2 Antibacterial and Multifunctional Natural Dyes in An Effort to Strengthen the Economy, 2012 5. Study Identifying the Impact of B3 and Domestic Waste Pollution on Marine Life in Tanjungpinang, Riau Islands, 2013 6. Development of Palm oil mill effluent (POME) become Renewable Energy and Utilization of Geotube Dewatering Technology for management of mud POME, 2015 7. Extraction of High Economic Rare Earth Metals, Lanthanum, and Yttrium From Bauxite Tailing Waste on Bintan Island, 2016 8. Green Synthesis of Zeolite X from Bauxite and Rice Husk Ash, 2016 9. Green Synthesis of Zeolite X from Bauxite and Silica Sand from Belitung, 2017 10. Synthesis of Zeolite X from Bauxite and Its Application as a Catalyst for Heterogeneous Fenton Reactions For Degradation of Synthetic Dyes, 2018 11. Synthesis of Montmorillonit's Kitosan Composites And Their Application As High-Performance Adsorbents For Reactive Color Substances, 2019

Industry collaboration/Community service over the last 5 year	1. Counseling of Synthetic Dyes (Rhodamine B and Methanyl Yellow) in Food in Teachers and Elementary Students in Air Ketekok Village, Tanjung Pandan subdistrict, Belitung District, 2016 2. Counseling of Synthetic Dyes in Food as An Effort to Improve Public Health in West Pagesangan, Mataram, 2017 3. Training in Making Organic Fertilizers Made from Household Waste in Terate Village, Kramatwatu Subdistrict, Banten, 2018
Patents and proprietary rights	-
Important publications over the last 5 years	1. Chemistry students' identity empowerment through ethnochemistry in culturally responsive transformative teaching (CRTT), *Journal of Physics: Conference Series*, 1156/2019 2. Development of Environmental Problem-Based Chemical Learning Module with Problem-Based Learning Approach in Solubility and Solubility Results Topic, *JRPK: Jurnal Riset Pendidikan Kimia*. 9/2019 3. Analysis of X-ray diffraction spectra of cholesteryl acrylate-Indium Tin Oxide nanoparticle composites, *Journal of Physics: Conference Series*, 1402/2019 4. Fourier Transformed Infrared (FTIR) spectroscopy for analysis of cholesteryl acrylate liquid crystal-indium tin oxide composites, *Journal of Physics: Conference Series*, 1402/2019 5. Synthesis and characterization of LTA zeolite from Kaolin Bangka, *Journal of Physics: Conference Series*, 1402/2019 6. Degradation of methyl orange by photo-assisted Fenton reaction using Indonesian bauxite as catalyst, *Journal of Physics: Conference Series*, 1402/2019 7. Simultaneous absorption and adsorption processes for biogas purification using Ca $(OH)_2$ solution and activated clinoptilolite zeolite/chitosan composites, *International Journal of Technology*, 10/2019 8. Leaching Kinetics of Lanthanide in Sulfuric Acid from Low-Grade Bauxite, *Materials Today: Proceedings*, 18/2019 9. Enhanced Activity of TiO_2/Natural Zeolite Composite for Degradation of Methyl Orange under Visible Light Irradiation, *International Journal of Technology*, 9/2018 10. Effect of mechanochemical and roasting techniques for extraction of rare earth elements from Indonesian low-grade bauxite, *IOP Conference Series: Materials Science and Engineering*, 316/2018 11. Adsorption of lanthanide ions from an aqueous solution in multicomponent systems using activated carbon from banana peels (Musa paradisiaca L.), *International Journal of Technology*, 9/2018

<table>
<tr><td></td><td colspan="3">12. Effect of physical and chemical modification on surface area of low-grade bauxite, IOP Conference Series: Earth and Environmental Science, 105/2018
13. The variations ITO concentration for observed properties of conductivity of polymer liquid crystal of cholesteryl acrylate-indium tin oxide, IOP Conference Series: Materials Science and Engineering, 434/2018
14. Extraction of natural dye powder from morinda citrifolia and its application as antibacterial dyes for cotton fabrics, IOP Conference Series: Materials Science and Engineering, 434/2018
15. Enrichment process of biogas using simultaneous Absorption-Adsorption methods, AIP Conference Proceedings, 1826/2017
16. Effect of The Concentration of Initiator 2-Hydroxy-2-Methyl-Phenylpropanone on Conductivity Properties and Composite Characteristics of Acrylate-Ito Collesteryl Polymer, Jurnal Riset Sains dan Kimia Terapan, 7/2017
17. Biogas from palm oil mill effluent: characterization and removal of CO2 using modified clinoptilolite zeolites in a fixed-bed column, International Journal of Technology, 4/2016
18. Synthesis and Characterization of Organolempung from Indonesian Bentonite, Spektra: Jurnal Fisika dan Aplikasinya, 16/2015
19. Synthesis and Characterization of TiO_2 From $TiCl_4$ and Its Application as A Fabric Bleaching Agent with Chitosan as A Supporting Material, Jurnal Riset Sains dan Kimia Terapan, 3/2013</td></tr>
<tr><td rowspan="2">Activities in specialist bodies over the last 5 years</td><td>Organization</td><td>Role</td><td>Period</td></tr>
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Position	Lecturer in Chemistry Education
Academic Career	1. Master's degree (Chemistry), Universitas Gajah Mada, Indonesia, 1997
Employment	Lecturer, Undergraduates's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	-
Industry collaboration over the last 5 year	-
Patents and proprietary rights	-
Important publications over the last 5 years	1. The Effect of Cooperative Learning Models of Conceptual Understanding Procedures (CUPs) on Chemical Learning Outcomes, *JRPK: Jurnal Riset Pendidikan Kimia*, 2014 2. Influence of Guided Discovery Learning Model on Learners' Chemical Literacy on Buffer Solution Topic, *JRPK: Jurnal Riset Pendidikan Kimia*, 2019 3. The Development of Chemistry Students' 21 Century Skills Through A Steam Project On Electrolyte And Non-Electrolyte Solutions, *Journal of Physics: Conference Series*, 2019 4. Effect of Addition of Rice Husk Biocars on Absorption of CO_2 Gas (Carbon Dioxide) And Strong Press on Wall Plaster, *Jurnal Riset Sains dan Kimia Terapan*, 2019 5. Influence of Guided Inquiry Learning Model Combined With Two Stay Two Stray (TSTS) on Students' Science Process Skills on Acid Solution Topic Integrated with Environmental Education, *JRPK: Jurnal Riset Pendidikan Kimia*, 2017 6. The Effect of Application of Concept-Based Reasoning Through Process Oriented Guided Inquiry Learning Strategies (POGIL) On Student Learning Achievement on Redox Material, *JRPK: Jurnal Riset Pendidikan Kimia*, 2017

<table>
<tr><td></td><td colspan="3">7. Development of Supporting Teaching Materials in Comic Form For Junior High School Students Grade VII on Elemental Materials, Compounds, and Mixtures, JRPK: Jurnal Riset Pendidikan Kimia, 2013
8. Development of Experiment Worksheet on The Subject of Reaction Rate for Class XI SMA/MA Through the Application of Green Chemistry (at Sman 31 Jakarta), JRPK: Jurnal Riset Pendidikan Kimia, 2013</td></tr>
<tr><td rowspan="2">Activities in specialist bodies over the last 5 years</td><td>Organization</td><td>Role</td><td>Period</td></tr>
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STAFF HANDBOOK

Name	**Edith Allanas, M.Pd**		
Position	Lecturer in Chemistry Education		
Academic Career	1. Bachelor's degree (Chemistry Education), Universitas Negeri Jakarta, Indonesia, 2007 2. Master's degree (Chemistry Education), Universitas Negeri Jakarta, Indonesia, 2015		
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia		
Research and Development project over the last 5 years	1. Analysis of Online Learning Readiness in Chemistry Learning Media Course at the Chemistry Education Study Program, FMIPA UNJ. 2019		
Industry collaboration/Community service over the last 5 year	1. Training for Making Learning Videos in Improving the Competence of 21st Century Teachers at Insan Cita Boarding School, Gunungsari District, Serang, Banten. 2019		
Patents and proprietary rights	-		
Important publications over the last 5 years	-		
Activities in specialist bodies over the last 5 years	Organization	Role	Period
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STAFF HANDBOOK

Name	**Ella Fitriani, M.Pd**
Position	Lecturer in Chemistry Education
Academic Career	1. Bachelor's degree (Chemistry Education), Universitas Negeri Jakarta, Indonesia, 2007-2012 2. Master's degree (Chemistry Education), Universitas Negeri Jakarta, Indonesia, 2012-2014
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	1. Using Demonstration Videos and Web 2.0 to Develop Basic Laboratory Skills for Chemistry Education Students. 2019 2. Development of Basic Skills in Chemistry Laboratory for First Year Students Through the Use of Demonstration Videos. 2018 3. Video Development of Basic Skills Demonstration in Chemistry Laboratory in Basic Chemistry Practicum Course. 2017 4. Development of Online Comprehensive Exams in the Chemistry Education Study Program UNJ. 2016 5. Integration of CoRe Framework and Metacognitive Strategy in the Development of Pedagogy Content Knowledge for Prospective Chemistry Teachers in Chemistry Curriculum Study Learning. 2015 6. Development of Learning Design for Chemistry Curriculum Study Based on E-Learning Using the ADDIE Model in the Department of Chemistry, UNJ. 2014 7. Development of Online Tests for Evaluation of Chemistry Learning of Class X High School Students on Redox Reaction Materials. 2012
Industry collaboration/Community service over the last 5 year	1. Improving Digital Literacy of Teachers in Gunungsari District, Serang, Banten. 2019 2. Increasing the Ability to Use e-Learning for High School Teachers in Waringin Kurung Village, Serang City as a Learning Media in the Industrial Revolution Era 4.0. 2018 3. Chemical Structure Writing Training for Chemistry Teachers in Pegesangan Barat, Mataram. 2017 4. Utilization of Marine Product Waste to Improve the Economy of the Air Ketekok Village Community, Tanjung Pandan District,

<table>
<tr><td></td><td colspan="3">Belitung. 2016
5. Improving Community Empowerment of Pager Kukuk Village, Wonosobo Subdistrict towards Environmental Potential Based on Local Excellence. 2015
6. Improving the Ability of Class-Based Research Implementation for Elementary School Teachers in the Kelapa Dua District, Tangerang Through Lesson Study. 2011</td></tr>
<tr><td>Patents and proprietary rights</td><td colspan="3">1. Chemistry Practicum Basic Skills Video: Smell Series Gas, using a Thermometer, And Making a Solution. 2018
2. Demonstration Video for Basic Chemistry Practicum Preparation: Titration Basic Skills Series. 2018</td></tr>
<tr><td>Important publications over the last 5 years</td><td colspan="3">1. A makerspace; a space to play and a space to learn. In Empowering Science and Mathematics for Global Competitiveness: Proceedings of the Science and Mathematics International Conference (SMIC 2018). Vol. 1, p. 132
2. Transnational Examination of STEM Education. International Journal of Innovation in Science and Mathematics Education (Formerly CAL-Laborate International). Vol 26 No 8/2018
3. Simulation of granular in two dimensions: The effect of particle velocity on rigid wall boundary. MATEC Web of Conferences. Vol. 197, p. 2001/2018.
4. Integration of the Core Framework and Metacognitive Strategies in the Development of Pedagogy Content Knowledge for Prospective Chemistry Teachers in Chemistry Curriculum Study Learning. JRPK: Jurnal Riset Pendidikan Kimia. Vol 8 No 1, p. 43–52/2018
5. Analysis of critical thinking skills in chemistry learning by using mobile learning for level x. IOP Conference Series. Vol. 434, p. 12086
6. Using a Makerspace approach to engage Indonesian primary students with STEM. Issues in Educational Research. Vol 28/1/2018
7. The effect of inquiry-flipped classroom model toward students' achievement on chemical reaction rate. AIP Conference Proceedings. Vol 1868/1/2017</td></tr>
<tr><td rowspan="2">Activities in specialist bodies over the last 5 years</td><td>Organization</td><td>Role</td><td>Period</td></tr>
<tr><td>-</td><td>-</td><td>-</td></tr>
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Name	**Elma Suryani, S.Pd., M.Pd**		
Position	Lecturer in Chemistry Education		
Academic Career	1. Bachelor's degree (Chemistry Education), Universitas Negeri Jakarta, Indonesia, 2004-2009 2. Master's degree (Chemistry Education), Universitas Negeri Jakarta, Indonesia, 2014-2016		
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia		
Research and Development project over the last 5 years	-		
Industry collaboration/Community service over the last 5 year	-		
Patents and proprietary rights	-		
Important publications over the last 5 years	-		
Activities in specialist bodies over the last 5 years	Organization	Role	Period
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Name	**Elsa Vera Nanda, S.Pd., M.Si**
Position	Lecturer in Chemistry Education
Academic Career	1. Bachelor's degree (Chemistry Education), Universitas Negeri Padang, Indonesia, 2008-2012 2. Master's degree (Organic Chemistry), Institut Teknologi Bandung, Indonesia, 2013-2015
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	1. Validation of Nitrite and Nitrate Analysis Methods in Bread Using p-Aminobenzoic Acid (PABA) through UV-Vis Spectrophotometry. 2020 2. Validation and Determination of Curcumin Levels in Herbs Gendong Kunyit Asam Sold in the Sawangan Region, Depok Using High Performance Liquid Chromatography (Kckt) Method. 2020 3. Utilization of Grape Seed Waste as Antimicrobial against Several Pathogenic Microorganisms. 2018
Industry collaboration/Community service over the last 5 year	1. Counseling on the Correct Use of Drugs to the People of the People's Heritage Village, Taruma Jaya District, Bekasi Regency. 2020 2. Applied Chemistry Project for Making Hand Washing Liquid Soap at SMPN 1 Tarumajaya. 2020 3. Improving the Quality of Learning Through Lesson Study at Insan Cita Boarding School, Gunungsari District, Serang, Banten. 2019
Patents and proprietary rights	-
Important publications over the last 5 years	1. Antibacterial Activity of Grape Seeds Extracts (Vitis vinifera L.) Against Streptococcus mutants ATCC 31987. Jurnal Farmasi Etam (JFE). Vol 1/1/2021 2. Performance column adsorption of methylene blue using composite spent coffe ground-copper ferrites (SCG/CuFe2O4). Journal of Physics: Conference Series. 1876/1/2021

<table>
<tr><td></td><td colspan="3">3. Validation and Determination of Curcumin Levels in Herbs Gendong Turmeric Acid with High Performance Liquid Chromatography Method. Sainstech Farma. 14/1/2021
4. The validation of nitrite and nitrate analysis methods in bread using p-aminobenzoic acid (PABA) via UV-VIS spectrophotometry. AIP Conference Proceedings. 2320/1/2021
5. Antifungal activity of grape seed ethanol extract against Malassezia furfur and Trichophyton mentagrophytes. Bioma. 16/1/2020
6. Antibacterial activity of grape seed n-hexane and ethanol extracts against Staphylococcus epidermidis and Propionibacterium acnes (IN PRESS). Prosiding Seminar Nasional Biologi. 6/1/2020
7. Antibacterial Activity of Grape Seed Extract (Vitis vinifera L.) against Streptococcus pyogenes. Sainstech Farma. 13/1/2020
8. Rhodamine B Analysis on Lipstick Circulating Via Online Shop Using Thin Layer Chromatography (TLC) and UV-Vis Spectrophotometry. Sainstech Farma. 11/2/2018</td></tr>
<tr><td rowspan="2">Activities in specialist bodies over the last 5 years</td><td>Organization</td><td>Role</td><td>Period</td></tr>
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Position	Lecturer in Chemistry Education		
Academic Career	1. Bachelor's degree (Chemistry), Universitas Lampung, Indonesia, 2000 2. Master's degree (Chemistry/Biotechnology), Universitas Indonesia, Indonesia, 2005 3. Doctor degree (Biochemistry/Biotechnology/Halal Food), International Islamic University Malaysia, 2015		
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia		
Research and Development project over the last 5 years	-		
Industry collaboration/Community service over the last 5 year	-		
Patents and proprietary rights	-		
Important publications over the last 5 years	1. Biologi SMP 3, 2006 2. Biologi SMA 1, 2006 3. Biologi SMA 3, 2006		
Activities in specialist bodies over the last 5 years	Organization	Role	Period
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Position	Lecturer in Chemistry Education
Academic Career	1. Bachelor's degree (Chemistry Education), IKIP Jakarta, Indonesia, 1991 2. Master's degree (Chemistry), Institut Teknologi Bandung, Indonesia, 2000 3. Doctoral degree (Learning Technologies), Universitas Negeri Jakarta, Indonesia, 2014
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	1. Manufacturing Polyester Composites With Hyacinth-Based Fillers and Silica Nanoparticles To Support The Transportation Industry, 2009 2. Study of Pedagogical Content Knowledge Of High School Chemistry Teachers in DKI Jakarta Region Using Pedagogical and Professional Experience Repertoires, 2015-2017 3. Development of Magnetic Material Synthesis Methods Of Fe, Co, Ni Systems on Conductive Polymer with Electrochemical Deposition Techniques, 2015-2016 4. Study of The Results of High School Chemistry Teacher Competency Test in North Jakarta Region, 2015 5. Development of Green Chemistry-Based Chemical Experiment Modules to Support Sustainable Development, 2017-2018 6. Hybridize Activities Inside and Outside the Classroom through Flipped Classroom Learning, 2017-2018 7. Development of Technological Pedagogical Content Knowledge (TPACK) of Chemistry Teachers in DKI Jakarta Through Lesson Study, 2019 8. Utilization of Google Classroom in Flipped Learning Model To Improve Digital Literacy of Students, 2019
Industry collaboration/Community service over the last 5 year	-
Patents and	1. PCK Development Guidelines (Pedagogical Content Knowledge),

proprietary rights	2017, 087840 2. Green Chemistry-Based Thermodynamics and Kinetics Experiment Module, 2017, 088729 3. Chemistry-Based Video Contextual Learning Of Acid-Base Materials Class XI HIGH SCHOOL "Serial Buffer", 2017, 090816 4. Chemistry-Based Video Contextual Learning Of Acid-Base Materials Class XI High School "Acid-Base Series", 2017, 090817 5. Mobile Learning Chemical Equilibrium: Materials and Experiments Based on Sustainable Development, 2018, 000118614 6. Demonstration Video for Basic Chemical Experiment Preparation: Titration Basic Skills Series, 2018, 000128192 7. http://ruangkreatif.id Mobile Learning Media Based on Students Development Courses, 2019, 000158530
Important publications over the last 5 years	1. Chemo-entrepreneurship: Learning Approach for Improving Student's Cooperation and Communication (Case Study at Secondary School, Jakarta), *Procedia-Social and Behavioral Sciences,* 2015, Vol.174 2. The Effect of Learning Model (Conceptual Change Based Instruction and Generative Learning Model) and Critical Thinking Skills to The Learning Outcomes of Acid-Base, *Jurnal Lentera Pendidikan,* 2016, Vol 1/No.1 3. The effect of inquiry-flipped classroom model toward students' achievement on chemical reaction rate, *AIP Conf. Proc,* 2017 4. Surface Area and Conductivity of Polyaniline Synthesized under UV Irradiation, *IOP Conference Series: Material Science and Engineering*, 2017, Vol 172/No.1 5. Web-Based Learning Resources and Students' Scientific Aptitude: Lessons from The Implementation of Professional Learning Community, *Proceeding of INTED*, 2017 6. Flipped Classroom: Alternative of The Model of Learning to Improve Student Learning Outcomes in K-10, *Indonesian Journal of Educational Review*,2017, Vol.4/No.1 7. Simple Pyrolysis of Plastic Waste and Its Implementation as a Learning Resource Based on Education for Sustainable Development (ESD) on Chemical Learning, *Jurnal Riset Pendidikan Kimia,* 2017, Vol. 7 /No. 1 8. Online Chemistry Videos Based on Contextual Learning as a Media Alternative to Alkaline Acid Matter In High School, *Jurnal Lentera Pendidikan Pusat Penelitian LPPM UM METRO*, 2017, Vol. 2 9. Developing and Application of Mobile Game-Based Learning (M-GBL) for High School Students Performance in Chemistry, *EURASIA J. Math., Sci Tech. Ed*, 2017 *10.* The Effect of Flipped Classroom–Project Based Learning Model and Learning Independence toward Students' Achievement in Chemical Bonding: Case Study in SMA Santa Ursula Jakarta, *ACM International Conference Proceeding Series,* 2017

<table>
<tr><td></td><td colspan="3">11. Analysis of Learners' Soft Skills on Redox Learning with Flipped Classroom-Collaborative Learning Model, JRPK – Jurnal Riset Pendidikan Kimia, 2018, Vol 8/No. 1
12. Analysis of Digital Literacy (ICT) of Learners Through The Utilization of Kahoot Web in Colloidal Learning, JRPK – Jurnal Riset Pendidikan Kimia, 2018, Vol 8/No. 2
13. Development of Android-Based Mobile learning media on Atomic Structure and Periodic Table, IOP Conf. Series: Materials Science and Engineering, 2018
14. Analysis of students' scientific literacy in contextual-flipped classroom learning on acid-base topic, IOP Conf. Series: Journal of Physics: Conf, 2019
15. Hybrid of Chemistry Learning Activities in Secondary School Through Development of The Flipped Classroom Model, Asia Proceeding of Social Science, 2019, Vol.4/No.3
16. Mobile Learning: Learning Model to Improve Student Learning Outcomes, Asia Proceeding of Social Science, 2019, Vol.4/No.3
17. Development of mobile learning media based on Education for Sustainable Development (ESD) in a chemical equilibrium topic, Empowering Science and Mathematics for Global Competitiveness: Proceedings of the Science and Mathematics International Conference (SMIC), CRC Press, 2019
18. Green Chemistry-Based Experiments as The Implementation of Sustainable Development Values, Jurnal Tadris Kimiya, 2019, Vol.4/No.1</td></tr>
<tr><td rowspan="2">Activities in specialist bodies over the last 5 years</td><td>Organization</td><td>Role</td><td>Period</td></tr>
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STAFF HANDBOOK

Name	**Dr. Moersilah, M.Si.**
Position	Lecturer in Chemistry Education
Academic Career	1. Bachelor's degree (Chemistry Education), IKIP Yogyakarta, Indonesia, 1985 2. Master's degree (Analytical Chemistry), Universitas Gajah Mada, Indonesia, 1996 3. Doctoral degree (Analytical Chemistry), Universitas Gajah Mada, Indonesia, 2017
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	1. Manufacture of Carbon Paste Electrodes Modified with Ferrozin for Analysis of Fe(II) in Water by Voltammetry, 2008 2. Immobilization of Ferrozin on PMMA Membranes as an Alternative Method for Analysis of Fe(II) in Water. 2009 3. Immobilization of Specific Reagents on PMMA Membranes as Fe(II) Sensors in Water, 2010 4. Immobilization of Bipiridin on PMMA Membrane for Analysis of Fe(II) in Water, 2011 5. Immobilization of 1,10-Fenantrolin in PMMA with EGDM Crosslinker for Fe(II) Analysis in Water, 2011
Industry collaboration/Community service over the last 5 year	-
Patents and proprietary rights	-
Important publications over the last 5 years	1. Analysis of Fe(II) as Fe(II)-Ferrozin Complex with Preparation of Complex Formation Outside and Inside Cartridge Sep-pack C_{18}, *Semirata BKS-PTA Barat Bidang MIPA di FMIPA Universitas Bengkulu*, 2008 2. Solid Phase Extraction Uses Sep-Pak C_{18} Cartridge For Fe(II) Analysis in Aquatic Samples, *Jurnal Kimia Lingkungan (FMIPA-UNAIR)*, 2009 3. Preparation and Qualitative Test of PMMA Membrane with Ligand 1,10-Fenantrolin to Detect Fe(II) In Water, *Proceeding (Seminar*

<table>
<tr><td></td><td colspan="3">Hasil Penelitian Unggulan dan Pemanfaatannya dalam Bidang Pendidikan, Dunia Usaha dan Industri, 2011
4. PAN-Immobilized PVC-NPOE Membrane for Environmentally Friendly Sensing of Cd(II) Ions, Indonesian Journal of Chemistry (IJC), 2017
5. Optical Chemical Sensor of Cd(II) in Water Based on 1-(2-Pyridylazo)-2-Naphtol Immobilized on Poly-Methyl Methacrylate and 2Nitrophenyl Octyl Ether Matrix, Malaysian Journal of Analytical Sciences (MJAS), 2017</td></tr>
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STAFF HANDBOOK

Name	**Dra. Tritiyatma Hadinugrahaningsih, M.Si**
Position	Lecturer in Chemistry Education
Academic Career	1. Bachelor's degree (Chemistry), IKIP Surabaya, Indonesia, 1980 2. Master's degree (Chemistry), Universitas Gajah Mada, Indonesia, 1988
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	1. Development of Students' Soft Skills in Chemical Learning Through the Integration of Socio-critical and Problem-Oriented Approaches, 2019 2. Analysis of Misconceptions of Prospective Teacher Students in Acid-Base Concept: Laboratory Jargon, 2018 3. 21st Century Skills Development through STEAM Learning Model (Science, Technology, Engineering, Art, and Mathematics) on Chemistry Learning, 2017 4. Development of Socio-Critical and Problem-Oriented Based Chemical Learning Models as an Effort to Develop Students' Character and Argumentability, 2016 5. Study of Pedagogical Content Knowledge Of High School Chemistry Teachers in DKI Jakarta Region Using Pedagogical and Professional Experience Repertoires, 2015-2017 6. Development of Dilemmas Stories in Effort to Integrate Character and Cultural Values in Chemical Learning, 2013
Industry collaboration/Community service over the last 5 year	1. Improving the Quality of Learning Through Lesson Study in Insan Cita Boarding School Gunungsari Subdistrict, Serang, Banten, 2019 2. Fish Preservation Training Using Kitosan in Terate Village, Kramat Waktu Subdistrict, Serang District, Banten Province, 2018 3. Improving Teacher Professionalism Through Lesson Study Activities in Order to Build Mgmp Chemistry Class-Based Research in Lombok (NTT), 2017 4. Improving Teacher Professionalism Through Lesson Study Activities in Order to Build Research-Based MGMP Chemical Class, Pandan Subdistrict, Belitung District, 2016 5. Detection of Formalin, Borax, and Synthetic Color Substances in

<table>
<tr><td></td><td colspan="3">Children's Snacks and Counseling of Dangers to Health to Mothers in Dieng, Central Java Province, 2015</td></tr>
<tr><td>Patents and proprietary rights</td><td colspan="3">1. 21st Century Skills and STEAM (Science, Technology, Engineering, Art and Mathematics) Project in Chemical Learning, 2017, C00201702976/088095</td></tr>
<tr><td>Important publications over the last 5 years</td><td colspan="3">1. Integration of Socio-Critical and Problem-Oriented Approach in Chemistry Learning for Students Soft Skill Development, MIER Journal of Education Studies, Trends and Practices, 2017, Vol. 7/No.1
2. Paedagogical Content Knowledge, The 8th International Seminar on Science, Mathematics and Technology Education (SMTE), 2015</td></tr>
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STAFF HANDBOOK

Name	**Yuli Rahmawati, M.Sc., Ph.D**
Position	Lecturer in Chemistry Education
Academic Career	1. Bachelor's degree (Chemistry Education), Universitas Negeri Jakarta, Indonesia, 2003 2. Master's degree (Science Education), Curtin University, Australia, 2008 3. Doctor's degree (Science Education), Curtin University, Australia, 2013
Employment	Lecturer, Undergraduate's Program in Chemistry Education, Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Jakarta 13220, Indonesia
Research and Development project over the last 5 years	1. Student Character And Cultural Identity Development Through Ethnochemical Integrated Culturally Responsive Teaching Learning Model, 2017-2019 2. Development of Science Literacy and Student Cultural Identity Through Ethnopedagogy Approach in Science (IPA) Learning, 2019-2021 3. Integration of Dilemmas Stories On STEAM Projects (Science, Technology, Engineering, Art, And Mathematics) in Chemistry Learning To Develop Students' 21st Century Skills, 2019-2020 4. Students' Character and Identity Empowerment Through Integration Of Dilemmas Stories In Chemistry Learning. 2019-2020 5. 22nd Century Skills Development of Labschool Students' Through STEAM Project in Chemistry Learning, 2019-2020 6. Development of Brain Learning Based Cycle Learning Model To Overcome Student Misconceptions in Chemical Learning, 2018 7. Analysis of Misconceptions of Prospective Chemistry Teacher Students on The Concept of Acid Bases: Laboratory Jargon, 2018 8. Development of Students' 21st Century Skills Through Student Mobility In International Multidisciplinary Project-Based Learning, 2017 9. Student Character And Cultural Identity Development Through Ethnochemical Integrated Culturally Responsive Teaching Learning Model, 2017-2019 10. 21st Century Skills Development Through Steam Learning Models

	(Science, Technology Engineering, Art, and Mathematics) on Chemistry Learning, 2017-2018 11. Development of Multicultural-Based Chemical Learning Strategies Based on Mental Analysis of Student Models With Differences in Cultural Background, 2016 12. Development of Design Of Green Chemistry Elective Courses in The Master Program in Chemistry Education, 2016 13. Mental Model Analysis of Prospective Chemistry Teachers in Chemistry Curriculum Study Courses, 2016 14. Evaluation of Chemical Education Master Program Curriculum as a Strategy for Achievement of Graduate Competence and Completion of Student Studies on Time, 2016 15. Study of Pedagogical Content Knowledge Of High School Chemistry Teachers in DKI Jakarta Region Using Pedagogical and Professional Experience Repertoires, 2015-2016 16. Strategy of Completing Student Studies on Time in the Master Study Program in Chemical Education, FMIPA State University of Jakarta, 2015 17. Integration of *CoRe Framework* and Metacognitive Strategy in *Pedagogy Content Knowledge* Development of Chemistry Teachers Candidates in Chemistry Curriculum Study Learning, 2015 18. Development of Socio-Critical and Problem Oriented Based Chemistry Learning Model as An Effort to Develop Student Cultural Identity in Chemical Learning, 2015 19. Learning *dilemmas stories* in an effort to integrate character and cultural values and the development of student cultural identity in chemical learning, 2014-2015 20. Development of Course Design, Curriculum, and Green Chemistry Materials Teaching Using The Foundation of *Transformative Learning* and *Education As Sustainability,* 2014
Industry collaboration/Community service over the last 5 year	1. Culture-Based Learning Training in Serang, 2018 2. Class Action Research Training in Tanjung Pandang Village, Belitung, 2016 3. Curriculum Learning Model Research Training 2013 in Wonosobo, 2015 4. Chemistry Department of Universitas Negeri Jakarta Community Service in Pramuka Island, Pulau Seribu Administrative District, 2014 5. Detection of Synthetic Dyes (Rhodamine B and Methanyl Yellow) in Food and Counseling Hazards for Public Health in Mothers of Al-Manah Haji Ten Kindergarten Foundation, East Jakarta, 2013 6. Chemistry Department of Universitas Negeri Jakarta Community Service in Pramuka Island, Pulau Seribu Administrative District, 2013 7. Raising the Funds for the Komite Bersama Peduli Kemanusiaan

	(KBPK)/Joint Committee for Humanitarism, Perth, Western Australia, 2006-2013
Patents and proprietary rights	1. STEAM Project Integration Implementation Guide in Science (MIPA) Learning, 2019, EC00201941048, 2. Guide to the Implementation of Culturally Responsive Transformative Teaching Learning Model Integrated with Ethnochemistry, 2019, EC00201941047 3. Guide to the Implementation of Dilemmas Stories Integration Learning Model in STEAM Projects, 2019, EC00201941045 4. Guide to the Implementation of Ethnopedagogic Learning Model in Science (IPA) Learning, 2019, EC00201941046 5. Socio-Critical Problem Oriented Approach in Chemistry Learning, 2018, EC00201814649 6. Dilemmas Stories Approach in Chemistry Learning, 2018, EC00201814648 7. CRT (Culturally Responsive Teaching) Based Acid-Base Teaching Materials, 2018, EC00201814647 8. STEAM (Science Technology Engineering Art Mathematics) Based Acid-Base Teaching Materials, 2018, EC00201814520 9. Learning Cycle 8E Model in Chemistry Learning, 2018, EC00201814514 10. Character-Based Chemistry Learning Models, 2017, C00201704745 11. Cultural and Character-Based Chemistry Learning Approach: Culturally Responsive Teaching Integrated with Ethnochemistry, 2017, C002017-2977 12. 21st Century Skills and STEAM (Science, Technology, Engineering, Art and Mathematics) Project in Chemical Learning, 2017, C002017-2976 13. Chemistry Teachers PCK Development Guidelines, 2017, C002017-2603 14. Mental Models and Misconceptions in Chemistry Learning, 2017, C002017-2971
Important publications over the last 5 years	1. Influence of Test Construction Knowledge, Teaching Material and Attitude on Sociological Subject to Quality of Objective Test in Public and Private Vocational Schools, *International Journal of Instruction (IJI), 12(3), 497-512* 2. Acid-base and redox reactions on submicro level: Misconceptions and challenge, *African Journal of Chemical Education, 9(1), 2019* 3. Students' misconceptions of acid-base titration assessments using a two-tier multiple-choice diagnostic test, *African Journal of Chemical Education, 9(1), 2019* 4. Analysis of Students' Cognitive Structure with Flowmap Methods in Alkaline Acid Matter using the 8E Learning Cycle Model, *Educhemia (Jurnal Kimia dan Pendidikan), 28(1), 2018* 5. Using a Makerspace approach to engage Indonesian primary

	students with STEM, *Issues in Educational Research (Scopus Index), 28(1), 2018* 6. STEAM Integration in Chemistry Learning for Developing 21st Century Skills, *MIER Journal of Educational Studies, Trends and Practices (Thomson Router Index), 7(2), 2018* 7. Integration of a Socio-Critical and Problem-Oriented Approach in Chemistry Learning for Students' Culture Identity Development, *MIER Journal of Educational Studies, Trends and Practices (Thomson Router Index), 7(1), 2017* 8. "The Fish Becomes Aware of The Water in Which It Swims": Revealing The Power of Culture in Shaping My Teaching Identity, *Culture Studies on Science Education (Scopus Index)*, 2017, DOI 10.1007/s11422-016-9801-1 9. Fieldwork, co-teaching and co-generative dialogue in lower secondary school environmental science, *Issues in Educational Research (Scopus Index), 26*(1), 2016 10. Analysis of students' cognitive structure of acid-base topics through flow map methods with the Learning Cycle 8E model, *Empowering Science and Mathematics for Global Competitiveness: Proceedings of the Science and Mathematics International Conference (SMIC),* 2018, ISBN: 978-1-138-61666-0 11. Students' cognitive structure with regard to chemistry concepts through the Learning Cycle 8E approach, *Empowering Science and Mathematics for Global Competitiveness: Proceedings of the Science and Mathematics International Conference (SMIC),* 2018, ISBN: 978-1-138-61666-0 12. Integration of the green chemistry approach in essential oil extraction practice to develop students' critical thinking skills, *Empowering Science and Mathematics for Global Competitiveness: Proceedings of the Science and Mathematics International Conference (SMIC),* 2018, ISBN: 978-1-138-61666-0 13. A makerspace; a space to play and a space to learn, *Empowering Science and Mathematics for Global Competitiveness: Proceedings of the Science and Mathematics International Conference (SMIC),* 2018, ISBN: 978-1-138-61666-0 14. Analysis of chemical identity thinking through problem-based learning based on redox and electrochemistry concepts, *Empowering Science and Mathematics for Global Competitiveness: Proceedings of the Science and Mathematics International Conference (SMIC),* 2018, ISBN: 978-1-138-61666-0 15. Chemistry students' identity empowerment through etnochemistry in culturally responsive transformative teaching (CRTT), *Journal of Physics Conference Series (Scopus Indexed) International*

	Conference of Chemistry, 2018, *1156:012033* 16. Developing critical and creative thinking skills through STEAM integration in chemistry learning, *Journal of Physics Conference Series (Scopus Indexed) International Conference of Chemistry*, 2018, *1156:012033* 17. Should We Learn Culture in Chemistry Classroom? Integration Ethnochemistry in Culturally Responsive Teaching, *AIP Conference Proceedings (Scopus Indexed) 5th International Conference on Research, Implementation And Education of Mathematics and Sciences (ICRIEMS)*, 2018, 1868 (1), 030008 18. Developing 21st Century Skills In Chemistry Classrooms: Opportunities and Challenges of STEAM Integration, *AIP Conference Proceedings (Scopus Indexed) 5th International Conference on Research, Implementation And Education of Mathematics and Sciences (ICRIEMS)*, 2018, 1868 (1), 030008 19. The Integration of Ethnochemistry in Culturally Responsive Teaching (CRT) for Students Engagement in Chemistry Learning, *International Conference Ahli dan Dosen Republik Indonesia*, 2017, ISBN: 978-602-60736-0-0 20. Integration Green Chemistry Approach in Teacher Education Program for Developing Awareness of Environmental Sustainability, *The 4th International Conference ASEAN Comparative Education Research Network (ACER-N)*, 2016, ISBN: 978-983-2267-95-9 21. Developing 22nd Century Skills through the Integration of STEAM in Smoke Absorber Project, *International Conference on Mathematics and Science Education (ICMScE)*, 2019 22. Students' Chemical Literacy Development through STEAM (Science, Technology, Engineering, Art, and Mathematics) Integrated with Dilemmas Stories on Acid and Base Topics, *International Conference on Mathematics and Science Education (ICMScE)*, 2019 23. Empowering students' Engagement in Organic Chemistry Learning through Integration of Dilemma stories with Number Head Together, *International Conference on Mathematics and Science Education (ICMScE)*, 2019 24. Students Empowerment in Chemistry Learning through the Integration Dilemma Teaching Pedagogy in Plastic Waste, *International Conference on Mathematics and Science Education (ICMScE)*, 2019 25. The Development of Chemistry Students' 21 century skills through a STEAM Project on Electrolyte and Non-Electrolyte solutions, *The 4th Annual Applied Science and Engineering Conference (AASEC)*, 2019 26. Students Engagement in Science Learning through the Integration of Ethnopedagogy in Wastewater Treatment Project, *The 4th Annual*

	Applied Science and Engineering Conference (AASEC), 2019 27. Chemistry Students' Cognitive Structure in Oxidation-Reduction through Learning Cycle 8E, *The 4th Annual Applied Science and Engineering Conference (AASEC),* 2019 28. Culturally Responsive Teaching Approach and Ethnochemistry Integration of Tegal Culture for Developing Chemistry Students Critical Thinking Skills in Acid-Base Learning, *The 4th Annual Applied Science and Engineering Conference (AASEC),* 2019 29. Who are we? Chemistry students' identity empowerment through etnochemistry in Culturally Responsive Transformative Teaching (CRTT), *The Second International Conference on Transformative Educational Research and Sustainable Development*, 2018 30. Art integration in STEM education: STEAM in chemistry learning for engaging students in critical thinking skills development, *The Second International Conference on Transformative Educational Research and Sustainable Development*, 2018 31. Chemistry students' identity empowerment through etnochemistry in culturally responsive transformative teaching (CRTT), *International Conference of Chemistry*, 2018 32. Developing critical and creative thinking skills through STEAM integration in chemistry learning, *International Conference of Chemistry,* 2018 33. The Role of Transformative Learning in Chemical Education: Character Development, Cultural Identity, and 21st Century Competence, *Seminar Nasional Kimia dan Pembelajarannya di Universitas Negeri Malang (UM),* 2017 34. Opportunities and Challenges in Integrated Cultural Ethics and Values in Curricula and Instructions, *Western Australian Institute for Educational Research*, 2017 35. Integrated Moral Values in Standard Based Assessment: Opportunities and Challenges of Computer-Based Test in Indonesia National Examination, *International Conference on New Horisons in Education, 2017* 36. Implementing Standard Based Education: Indonesia Response to National and Global Challenges of Higher Education, *The Association of Southeast Asian Institutions of Higher Learning (ASAIHL), 2017* 37. Integration of Science, Technology, Engineering, Art, and Mathematics (STEAM) Approach for Developing 21st Century Skills of Chemistry Students, *The First Annual International Seminar on Transformative Educational and Educational Leadership (AISTEEL)*, 2016 38. Integration Green Chemistry Approach in Teacher Education Program for Developing Awareness of Environmental Sustainability, *The 4th International Conference ASEAN Comparative Education Research Network (ACER-N),* 2016

<table>
<tr><td></td><td colspan="3">39. Exploring Pre-Service Chemistry Teachers' Mental Model for Developing Their Pedagogical Content Knowledge, The 4th International Conference ASEAN Comparative Education Research Network (ACER-N), 2016
40. Portraying Chemistry Students' Mental Model From Cultural Perspectives, The First International Conference on Transformative Education Research and Sustainable Education, 2016
41. Teaching Values Journey: Challenges and Opportunities In Integrating Ethical Dilemma Story Pedagogy In Chemistry Learning, The First International Conference on Transformative Education Research and Sustainable Education, 2016
42. Empowering Science and Mathematics for Global Competitiveness, 2019, CRC Press
43. Research as Transformative Learning for Sustainable Futures Glocal Voices and Visions
Chapter: Returning Home: Key Challenges Facing a Transformative Educator
Series: Bold Visions in Educational Research, Volume: 64, 2019 Sense, Brill Publisher
44. Cultural and Character-Based Chemical Learning Approach, 2018, Campustaka
45. 21st Century Skills and STEAM (Science, Technology, Engineering, Art and Mathematics) Project in Chemical Learning, 2018, Campustaka</td></tr>
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