



Prof. Dr. Nita Kusumawati, M.Sc

Position	Analytical Chemistry Lecturer			
	Professor on Analytical Chemistry			
Academic Career	Degree	University	Year	
	Bachelor Degree (Analytical Chemistry)	ITS, Indonesia	2004	
	Master Degree (Analytical Chemistry)	UGM, Indonesia	2008	
	Doctoral Degree (Analytical Chemistry)	Universitas Airlangga, Indonesia	2013	
Employment	Position	Employer	Period	
	Associate Professor	Universitas Negeri Surabaya		
Research and Development Projects Over The Last 5 Years	Title	Year	Partner/Funder	Amount of Financing (million)
	Optimization of Raw Materials through Reuse of Batik Remaining Nigth to "Zero Waste Management" as an Effort to Develop the Mainstay of the Java Economic Corridor Batik Industry (First Year)	2015	Hibah Penelitian Prioritas Nasional MP3EI DP2M	150
	Optimization of High-Performance Ultrafiltration Membrane Engineering with Phase / Immersion-Precipitating and Blending Inversion Techniques using Polyvinylidene Fluoride, Polysulfone and Polyetherimide as Superior Multifunction	2015	Hibah Penelitian Unggulan Perguruan Tinggi	100

	Technology (First Year)			
	Optimization of Raw Materials through Reuse of Batik Remaining Night to "Zero Waste Management" as an Effort to Develop the Java Economic Corridor Batik Industry Mainstay (Second Year)	2016	Hibah Penelitian Prioritas Nasional MP3EI DP2M	150
	Optimization of High-Performance Ultrafiltration Membrane Engineering with Phase / Immersion-Precipitating and Blending Inversion Techniques using Polyvinylidene Fluoride, Polysulfone and Polyetherimide as Superior Multifunction Technology (Second Year)	2016	Hibah Penelitian Unggulan Perguruan Tinggi	225
	Optimization of High-Performance Ultrafiltration Membrane Engineering with Phase / Immersion-Precipitating and Blending Inversion Techniques using Polyvinylidene Fluoride, Polysulfone and Polyetherimide as Superior Multifunction Technology (Third Year)	2017	Hibah Penelitian Unggulan Perguruan Tinggi	355
	Optimization of Raw Materials through Reuse of Batik Remaining Night to Zero Waste Management as an Effort to Develop Batik Industry in Java Economic Corridor (Third Year)	2017	Hibah Penelitian Prioritas Nasional MP3EI DP2M	185
	Standardization of High-performance Membranes with Coating and Blending Techniques using Polyvinylidene fluoride, Polysulfone and Polyetherimide as Industry's Leading Multifunctional	2018	Hibah Penelitian Unggulan Perguruan Tinggi	137,5

	Technology			
	Standardization of High Performance Membranes with Coating and Blending Techniques Using Polivinylidene Fluoride, Polysulfone and Polyetherimide As Industry's Leading Multi-Function Technology	2018	Penelitian Terapan Unggulan Perguruan Tinggi	140
	Standardization of Natural Dyes and Encapsulation of <i>Psidium guajava</i> , <i>Syzygium aqueum</i> , <i>Garcinia mangostana</i> as Leading Green Technology of the Textile Industry	2019	Hibah Penelitian Terapan Unggulan Perguruan Tinggi	224,329
	Utilization of Pad Steam Dyeing Technology (PSD) to Increase the Effectiveness and Efficiency of Universitas Negeri Surabaya Eco-Batik Pilot Line Fabrication Scale	2019	Hibah Penelitian Pengembangan Prototipe Industri	70
	Application of Polyvinylidene fluoride-Hexafluoropropylene Membranes as a Supporting Layer to Prevent Electrolyte Leaks and Electrode Corrosion in Dyes Sensitized Solar Cell Based on Natural Pigment	2020	Hibah Penelitian Terapan DRPM Dikti Kemendikbud	270,197
	Development of Herbal-Based Food Processes as Immunostimulant and Anti-Microbial Products to Prevent the Spread of COVID-19 Infection	2020	Hibah Penelitian Pengembangan Prototipe Industri	50
<b>Community Service Over The Last 5 Years</b>	<b>Title</b>	<b>Year</b>	<b>Partner/Funder</b>	<b>Amount of Financing (million)</b>
	Science for Community of Batik Pacitan SMEs	2016	DRPM Kemenristek	47,5

			Dikti	
	Science for Community of Dishwashing Soap Producers SMEs	2017	DRPM Kemenristek Dikti	40
	Community Service of Food & Beverage SMEs in Gondanglegi Kulon Village, Gondanglegi District, Malang Regency	2018	DRPM Kemenristek Dikti	40
	Community Service of Batik Paciran SMEs	2019	DRPM Kemenristek Dikti	49,7
	PKM Usaha Batik Tulis Pewarna Alam Pakandangan Sumenep Madura Natural Color Written Batik Business SMEs in Pakandangan Sumenep Madura	2020	DRPM Kemenristek Dikti	48
<b>Industry Collaborations Over The Last 5 Years</b>				
<b>Patents and Proprietary Rights</b>	<b>Title</b>	<b>Patent ID</b>	<b>Year</b>	
	Preparation Method for Polyvinylidene fluoride Composite Membrane (PVDF) - Polysulfone (PSf) with Phase Inversion Method and Immersion Technique - Precipitation in Cellulose Support Layer	S10201506764	2015	
	Modification Method for Making Batik Night with Double Component Blending using Batik Night, Gondorukem, Paraffin and Kendal Waste Materials	S10201506763	2015	
	Modified Batik Night (Wasp Night, Night Waste, Gondorukem, Kendal) and Its	P00201606112	2016	

	Manufacturing Methods		
	Making Batik Natural Dyes from Mangosteen Skin Waste Material and Its Application in Cotton Fabric Staining	P00201606113	2016
	The Making of Batik Natural Dyes from the Citrus Skin Waste Material and Its Application in Staining Cotton Fabric	P00201606111	2016
	Polysulfone Composite Membrane (PSf) - Polyvinylidene fluoride (PVDF) and its method of manufacture	P00201606108	2016
	Polyetherimide (PEI) Asymmetry Membrane and Manufacturing Method	P00201606109	2016
	Halal Gelatin and the Method of Making it	P00201606112	2018
		P00201805325	2018
	Herbal Empon-empon Powder and Manufacturing Method	P00201810039	2018
	Making Water-Based Natural Dyes and Their Application Methods	P00201810035	2018
	Manufacture of Water Based Natural Dyes and Application Methods using Pad Steam Dyeing Technology	P00202004895	2019
	Herbal Tea Based on Spacebars and Methods of Manufacture	P00202008953	2020
	Making Herbal Sweet Based on Spres and The Method of Its Making	P00202008958	2020
	Method for Making Hand Sanitizer Gel, Spray, and Tissue Based on Bioethanol	P00202009047	2020
	Method of Making Herbal Jelly Drink Based on Ginger, Curcuma, and Galangal	P00202008956	2020
	Coloring and Encapsulation <i>Psidium</i>	P00202008955	2020

	<i>guajava, Syzygium aqueum, Garcinia mangostana</i> as The Leading Green Technology of The Textile Industry		
	Method of Making Halal Gelatin with Polysulfone (PSf) Membrane Filtration	P00202008959	2020
	Method of Making Herbal Tea Products Based on Ginger, Curcuma, and Galangal	P00202008954	2020
	Instant Herbal Drinking Based on Spaces and The Method of Its Making	P00202008960	2020
<b>Important Publication Over The Last 5 Years</b>	<p><b>Nita Kusumawati.</b> 2015. The Influence of Casting Solution Composition and Stirring Conditions Against Mechanical Strength and Performance of Polyvinylidene fluoride (PVDF)-Polysulfone (PSf) Composite Membrane on Textile Industrial Wastewater Treatment. Research Journal of Pharmaceutical, Biological, and Chemical Science (RJPBCS). Vol. 6 No. 1,</p> <p><b>Nita Kusumawati.</b> 2015. Manufacture of PVDF-Kitosan Composite Membrane and its Utilization in Batik Industrial Wastewater Treatment. Research Journal of Pharmaceutical, Biological, and Chemical Science (RJPBCS). Vol. 6 No. 1</p> <p><b>Nita Kusumawati.</b> 2015. The Influence of Washing Process using TRO on Indigosol Dyeing Quality, Leaching Percentage, and Mechanical Strength of Mori Fabric. Research Journal of Pharmaceutical, Biological, and Chemical Science (RJPBCS). Vol. 6 No. 6</p> <p><b>Nita Kusumawati.</b> 2016. Optimization of Batik Wax Waste Reutilization by Blending Method using Gum Rosin, Paraffin, and Lard on Handmade Batik Fabric Production Towards Zero Waste Management. Research Journal of Pharmaceutical, Biological, and Chemical Science (RJPBCS). Vol. 7 No. 2</p> <p><b>Nita Kusumawati.</b> 2016. The Effect of Casting Solution and Non Solvent Composition on The Performance of Polysulfone Membranes against Chromium (VI). Research Journal of Pharmaceutical, Biological, and Chemical Science (RJPBCS). Vol. 7 No. 2</p> <p><b>Nita Kusumawati.</b> 2016. The Development of a New Polymer Membrane : PSf/PVDF Blended Membrane. Research Journal of Pharmaceutical, Biological, and Chemical Science (RJPBCS). Vol. 7 No. 4</p> <p><b>Nita Kusumawati.</b> 2016. Operational Conditions Optimization on Blacu Fabric Dyeing Technology (Case Study : Mordanting Influence on Naphtol Color Quality and Mechanical Strength of Blacu Fabric). Research Journal of Pharmaceutical, Biological, and Chemical Science (RJPBCS). Vol. 7 No. 5</p>		

- Nita Kusumawati.** 2016. Development and Characterization of Polysulfone/Polyvinylidene Fluoride Blend Membrane Induced by Delayed Liquid-Liquid Demixing. International Journal of Advanced Science, Engineering, and Information Technology (IJASEIT). Vol. 6 No. 5
- Nita Kusumawati.** 2016. Transport Properties, Mechanical Behaviour, Thermal and Chemical Resistance of Asymmetric Flat Sheet Membrane Prepared from PSf/PVDF Blended Membrane on Gauze Supporting Layer (). Indonesian Journal of Chemistry (IJC).
- Nita Kusumawati.** 2016. The Effect of Stirring Time And Cast Thickness On Morphology, Permeability, and Thermal Stability of PSf/PVDF Blended Membrane. Journal of Macromolecular Science B.
- Nita Kusumawati.** 2016. IPTEKS Bagi Masyarakat Usaha Budidaya Lele "Tirta Anugerah" Maospati Magetan Dan Umkm Olahan Pangan Permata Alami Madiun (Science and Technology For the Community of "Tirta Anugerah" Catfish Cultivation, Maospati Magetan And Processed Food Processors Of Natural Jewel Madiun). Jurnal Abdi. Vol 1 No 2 pp: 135-141
- Nita Kusumawati.** 2016. Pelatihan Budidaya Cacing Tanah (*Lumbricus Rubellus*) Bagi Para Tani Desa Sumberdukun, Ngariboyo, Magetan (Earthworm Cultivation (*Lumbricus Rubellus*) Training for Farmers in Sumberdukun Village, Ngariboyo, Magetan (Co-Author)). Jurnal Abdi . Vol 1 No 2 pp: 114-120
- Nita Kusumawati.** 2017. Pengaruh Komposisi Larutan Cetak dan Temperatur Pengadukan Terhadap Karakteristik Fisik, Mekanik dan Permeabilitas Air Murni Membran Polyether Imide (Effect of Print Solution Composition and Stirring Temperature on Physical, Mechanical and Permeability Characteristics of Pure Water Polyether Imide Membranes). Indonesian Chemistry and Application Journal (ICAJ) . Vol 1 No.1
- Nita Kusumawati.** 2017. The influence of Washing Process Using TRO on Indigosol Dyeing Quality, Leaching Percentage, and Mechanical Strength of Mori Fabric. Research Journal of Pharmaceutical, Biological and Chemical Sciences (RJPBCS) . Vol 8 No. 6
- Nita Kusumawati.** 2017. Product Standardization of Ginger (*Zingiber officinale* Rosc.) and Red Ginger (*Zingiber officinale* var. *Rubrum*) Simplicia through Washing Time, Slice Thickness and Raw Materials Drying Process Optimization. International Journal of Advanced Science, Engineering, and Information Technology (IJASEIT). Vol. 7 No. 1
- Nita Kusumawati.** 2017. Extraction, Characterization and Application of Natural Dyes from the Fresh Mangosteen (*Garcinia mangostana* L.) Peel . International Journal of Advanced Science, Engineering, and Information Technology (IJASEIT). Vol. 7 No. 3
- Nita Kusumawati.** 2017. The Effect of Blending Composition Against Latched Power and the Resistance of Batik Wax Against Cracking and Alkaline Chemicals. International Journal of Advanced Science, Engineering,

and Information Technology (IJASEIT). Vol. 7 No. 4

**Nita Kusumawati.** 2018. Synergistic Ability of PSf and PVDF to Develop High-Performance PSf/PVDF Coated Membrane for Water Treatment. RASAYAN Journal of Chemistry (RJC). Vol. 11 No. 1

**Nita Kusumawati.** 2018. Transport Properties, Mechanical Behavior, Thermal and Chemical Resistance of Asymmetric Flat Sheet Membrane Prepared from PSf/PVDF Blended Membrane on Gauze Supporting Layer. Indonesian Journal of Chemistry (IJC). Vol. 18 No. 2, 2018

**Nita Kusumawati.** 2018. Polysulfone/Polyvinylidene fluoride Composite Membrane: Effect of Coating Dope Composition on Membrane Characteristics and Performance . RASAYAN Journal of Chemistry (RJC). Vol. 11 No. 3

**Nita Kusumawati.** 2018. Synergetic ability of PSf and PVDF to develop high-performance PSf/PVDF coated membrane for water treatment. Rasayan Journal of Chemistry (RJC). Vol 11 No. 1

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**Nita Kusumawati.** 2018. Development of Textile Natural Dyeing using Hybrid Dyes from Mango Leaves Turmeric. Advances in Engineering Research, Atlantis Press, . Vol 171. ISSN: 2352-5401, ISBN: 978-94-6252-591-7

**Nita Kusumawati.** 2018. The Production and Characterization of Kaempferia Galangal L-based Herb Powder: Blanching and Drying Procedure Influence on Proximate, Metal, and Microbial Contamination Level. Advances in Engineering Research, Atlantis Press, . Vol 171. ISSN: 2352-5401, ISBN: 978-94-6252-591-7

**Nita Kusumawati.** 2018. The Development of New Composite Polymer Membrane: Polysulfone (PSf) Polyetherimide (PEI) Coated Membrane. Advances in Engineering Research, Atlantis Press, . Vol 171. ISSN: 2352-5401, ISBN: 978-94-6252-591-7

**Nita Kusumawati.** 2018. The Development of PVDF/ PEI Blended Membrane: Effect of Stirring Time on Membrane Characteristic and Performance. Proceeding of The International Conference on Science and Technology (ICST 2018). Vol 1

**Nita Kusumawati.** 2018. Optimazation of Slice Thickness, Drying Method, and Temperature of Turmeric Rhizome (Curcuma Longa L) Based on Water Content and Functional Compound Degradation (). Proceeding of The International Conference on Science and Technology (ICST 2018). Vol 1

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Membrane Characteristics and Performance. RASAYAN Journal of Chemistry (RJC). Vol. 12 No. 2

**Nita Kusumawati.** 2019. The Effect of Curing and Extraction Time against Yield and Quality of Type B Gelatin from Goat Bone. National Seminar on Chemistry (SNK 2019). Vol. 1

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**Nita Kusumawati.** 2019. Exploration of Natural Dyes by Using a Combination of *Caesalpinia sappan* and *Leucaena leucocephala* L. Leaves. National Seminar on Chemistry (SNK 2019). Vol. 1

**Nita Kusumawati.** 2019. Extraction and Application of Natural Dyes from Brazilwood and Water guava leaves. National Seminar on Chemistry (SNK 2019). Vol. 1

**Nita Kusumawati.** 2019. Standardization of Herbal Tea Quality Production Baureno Bojonegoro Society. National Seminar on Chemistry (SNK 2019). Vol. 1

**Nita Kusumawati.** 2019. Diversification of "NAJWA" Hijab Staining using Tie-Dye Method Based on Natural Dyes. National Seminar on Chemistry (SNK 2019). Vol. 1

**Nita Kusumawati.** 2020. Preparation and Characterization of Goatskin Gelatin as Halal Alternative to Bovine Gelatin. RASAYAN Journal of Chemistry (RJC). Vol. 12 No. 2

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Activities in Special Institution	Organization	Position	Period