

## DAFTAR PUSTAKA

- Artika. (2023). *Bahan Alami Untuk Pengembangan Produk Bernilai Jual*.
- Asih, H. M., Suhariyanto, T. T., & Ramadhan, M. C. (2022). Designing Standard Operation Procedure To Produce Environmentally Friendly Liquid Detergent. *Opsi*, 15(2), 317. <https://doi.org/10.31315/Opsi.V15i2.6446>
- Benedetto, F. E., Zolotucho, H., & Prado, M. O. (2015). Critical Assessment Of The Surface Tension Determined By The Maximum Pressure Bubble Method. *Materials Research*, 18(1), 9–14. <https://doi.org/10.1590/1516-1439.232513>
- Dewangga Alvauzi, A., & Suparno. (2017). *The Effect Of Adding Concentration Surfactant Of Sodium Lauryl Sulfate(Sls) On The Surface Tension And Viscosity Of Pertamina Enduro 4 Strokeengine Oil*.
- Emi Sarnita, Yulia Windi Tanjung, Wahyu Andrean, Sara, F., Dewi, S., Arisna, C., Feriandi, N., & Refta, R. (2024). Pembuatan Sabun Cuci Piring Ramah Lingkungan Dari Ekstrak Jeruk Nipis Dan Daun Pandan Guna Meningkatkan Kesadaran Masyarakat Akan Bahaya Bahan Kimia. *Jurnal Masyarakat Mengabdikan Nusantara*, 3(4), 09–20. <https://doi.org/10.58374/Jmmn.V3i4.278>
- Gayathry, K. S., & John, J. A. (2024). Physical, Functional And Bioactive Properties Of Microencapsulated Powders From Banana Pseudostem And Inflorescence Extracts. *Food Production, Processing And Nutrition*, 6(1). <https://doi.org/10.1186/S43014-024-00251-7>
- Halawa, O., Hura, A. J. S., Mendrofa, F., Mendrofa, R. D., Waruwu, R. F., Zai, Y. T., Laoli, D. Y., & Harefa, L. A. (2025). Pelatihan Pembuatan Sabun Cuci Piring Berbahan Alami Di Desa Siwalubanua Ii, Gunungsitoli Idanoi. *Jurnal Pengabdian Masyarakat Bhinneka*, 3(4), 1116–1122. <https://doi.org/10.58266/Jpmb.V3i4.329>
- Hambali, Permadi, Pudji., Erliza, Suryani, Ani, Rivai, & Mira. (2019). *Teknologi Surfaktan Dan Aplikasinya* (Edisi Revisi). Ipb Press.
- Holmberg, K., Bilén, F., & Bordes, R. (2025). Development Of Amino Acid-Based Surfactants: From Synthesis To Applications. In *Current Opinion In Colloid*

*And Interface Science* (Vol. 75). Elsevier Ltd.  
<https://doi.org/10.1016/j.cocis.2024.101884>

Ichwan Renaldi, M., Ari Dwiyanto, H., Dyah Siswati, N., & Widji Triana, N. (2025). Ekstraksi Saponin Dari Daun Sengon (*Paraserianthes Falcataria* (L.) Nielsen) Menggunakan Pelarut Etanol Dengan Metode Soxhletasi. In *Jurnal Integrasi Proses* (Vol. 14, Number 1).  
<http://jurnal.untirta.ac.id/index.php/jip>

Johnson, P., Trybala, A., Starov, V., & Pinfield, V. J. (2021). Effect Of Synthetic Surfactants On The Environment And The Potential For Substitution By Biosurfactants. *Advances In Colloid And Interface Science*, 288, 102340.  
<https://doi.org/10.1016/j.cis.2020.102340>

Juliyanto, E., Rofingah, J., Finda Sejati, A., & Nuzulil Hakim, F. (2016). *Menentukan Tegangan Permukaan Zat Cair*.

Lidia, I., Mursal, P., Fikayuniar, L., Fadila, M., & Anggraini, M. (2023). *Kajian Pemanfaatan Bahan Alam Di Indonesia Sebagai Alternatif Bio Surfaktan*. 880–889.

Malviya, R., Jha, S., Fuloria, N. K., Subramaniyan, V., Chakravarthi, S., Sathasivam, K., Kumari, U., Meenakshi, D. U., Porwal, O., Sharma, A., Kumar, D. H., & Fuloria, S. (2021). Determination Of Temperature-Dependent Coefficients Of Viscosity And Surface Tension Of Tamarind Seeds (*Tamarindus Indica* L.) Polymer. *Polymers*, 13(4), 1–11.  
<https://doi.org/10.3390/polym13040610>

Montgomery, D. C. (2017). *Design And Analysis Of Experiments*. John Wiley & Sons, Incorporated. <https://books.google.co.id/books?id=Py7bdgaaqbaj>

Mulyani, N., Sartika Jurusan Teknologi Hasil Pertanian, D., & Pertanian Universitas Lampung, F. (2022). (2022) 209 Formulasi Sabun Cuci Piring Racikan Dengan Penambahan Gel Lidah Buaya Dan Jeruk Nipis. *Jurnal Agroindustri Berkelanjutan*, 1(2).

- Murniati, Handayani, S. S., Suhendra, D., Gunawan, E. R., & Ramdani, N. (2023). Sintesis Metil Ester Sulfonat Berbasis Minyak Biji Kelor (*Moringa Oliofera* L.) Pada Variasi Waktu Dan Suhu Sulfonasi. *Jst (Jurnal Sains Dan Teknologi)*, 12(2). <https://doi.org/10.23887/Jstundiksha.V12i2.50380>
- Nagtode, V. S., Cardoza, C., Yasin, H. K. A., Mali, S. N., Tambe, S. M., Roy, P., Singh, K., Goel, A., Amin, P. D., Thorat, B. R., Cruz, J. N., & Pratap, A. P. (2023). Green Surfactants (Biosurfactants): A Petroleum-Free Substitute For Sustainability—Comparison, Applications, Market, And Future Prospects. In *Acs Omega* (Vol. 8, Number 13, Pp. 11674–11699). American Chemical Society. <https://doi.org/10.1021/acsomega.3c00591>
- Nur Afifah, D., Falah Maulidina, R., Astuti, N., & Annisa Wahyudi, R. (2023). Application Of Saponin From Ambon Banana Petiole (*Musa Paradisiacavar. Sapientum* L.) As Natural Surfactants In Bio-Hand Soap. *Research In Chemical Engineering*, 2. No 1, 2023, 8–13. <https://ejournal.ump.ac.id/index.php/Rice>
- Nurleni, N., Firdiawan, A., & Marjaya, T. (2023). Formulasi Sabun Cair Ekstrak Bongkol Pisang Kepok (*Musa Paradisiaca* L.) Sebagai Antibakteri Dengan Variasi Minyak Zaitun Pada Basis Sabun. In *Jurnal Ilmiah Bakti Farmasi* (Vol. 2023).
- Nurrohim, E. D., Pramana, A., Idayanti, R., Husna, M. A., Amelia, L., & Wirhanuddin, W. (2025). Formulation And Evaluation Of Dishwashing Soap Based On *Eichhornia Crassipes* Activated Carbon As An Environmentally Friendly Cleanser. *Hydrogen Jurnal Kependidikan Kimia*. <https://doi.org/10.33394/Hjkk.V13i3.16034>
- Patiño-Camino, R., Cova-Bonillo, A., Lapuerta, M., Rodríguez-Fernández, J., & Segade, L. (2022). Surface Tension Of Diesel-Alcohol Blends: Selection Among Fundamental And Empirical Models. *Fluid Phase Equilibria*, 555, 113363. <https://doi.org/10.1016/J.Fluid.2021.113363>

- Pratma Suharto, A., Hosea Jaya, E., Dumanauw, J., Jaya Edy, H., & Dumanauw, J. M. (2013). *Isolasi Dan Identifikasi Senyawa Saponin Dari Ekstrak Metanol Batang Pisang Ambon (Musa Paradisiaca Var. Sapientum L.)*.
- Rafifa, M., Zahra, A. A., Putra, H. E., Aini, K. N., Sabrina, L. M., & Maulida, V. S. (2025). Literatur Review: Pengaruh Jenis Surfaktan Terhadap Stabilitas Fisik Mikroemulsi. *Jurnal Integrasi Kesehatan & Sains*, 7(1), 46–52. <https://doi.org/10.29313/Jiks.V7i1.14399>
- Rai, S., Acharya-Siwakoti, E., Kafle, A., Devkota, H. P., & Bhattarai, A. (2021). Plant-Derived Saponins: A Review Of Their Surfactant Properties And Applications. In *Sci* (Vol. 3, Number 4). Mdpi. <https://doi.org/10.3390/Sci3040044>
- Raj Adhikari, D., Bahadur Budha, T., Basnet, A., Kant Adhikari, S., & Pd Baral, S. (2023). Surface Tension Of Liquids. *Bmc Journal Of Scientific Research*, 31–36.
- Rasyidan, F., Agus Tri Susilo, Hemalia Putri Johar Manik, Zulfa Aswida Najib, Alodia Ikhsanty, Aurellia Febriana Maharani, Cintya Jane Stefany, Hanifa Masrura, Naila Khalila Akbar, & Sunu Aziz Wicaksono. (2025). Pembuatan Sabun Cuci Piring Berbahan Dasar Alami Jeruk Nipis Sebagai Alternatif Produk Ramah Lingkungan. *Jurnal Akademik Pengabdian Masyarakat*, 3(5), 05–10. <https://doi.org/10.61722/Japm.V3i5.6320>
- Rery, R. U., Gustina, O. A., Gultom, C. E., Thahri, R. A., Putri, T. S., Silitonga, A. S., Ayuningtyas, S., Mandalica, P. F., Miktial, R. P., & Rasyid, Y. Al. (2022). Sosialisasi Proses Pembuatan Sabun Cuci Piring Sebagai Peluang Usaha Bagi Ibu Pkk Kelurahan Padang Terubuk, Kecamatan Senapelan, Kota Pekanbaru. *Jurnal Abdi Masyarakat Indonesia*, 2(5), 1489–1494. <https://doi.org/10.54082/Jamsi.458>
- Ria Indah, P., Titi, H., Nirmala, A., & Februyani, N. (2025). Potensi Limbah Kulit Pisang Kepok (Musa Acuminata Colla.) Sebagai Bahan Aktif Pembuatan Sabun Ramah Lingkungan. *Jurnal Farmasi, Kesehatan, Dan(Faskes)*. <https://doi.org/10.32665/Faskes.V2i2/5115>



- Roji Ramadhan Bangun, S., Mithari, R., Waningsih, A., Andriani, Y., Farmasi, P., Kesehatan, F., & Jenderal Achmad Yani Yogyakarta, U. (2024). Pelatihan Pemanfaatan Limbah Kulit Pisang Menjadi Sabun Cuci Piring Pada Ibu Pkk Padukuhan Pangkah. *Journal Of Innovation In Community Empowerment (Jice)*, 6(2), 99–105.
- Rosen, M. J., & Kunjappu, J. T. (2012). Surfactants In Biology. In *Surfactants And Interfacial Phenomena* (Pp. 471–501). Wiley. <https://doi.org/10.1002/9781118228920.ch13>
- Ruangnarong, C., Khojtmate, S., Srivorradatphisan, S., Panyathikun, N., & Chonsakorn, S. (2024). Evaluation Of Mechanically Extracted Banana Fibers From Pseudostem Layers: A Sustainable Textile Raw Material. *Heliyon*, 10(21). <https://doi.org/10.1016/j.heliyon.2024.E39880>
- Sarkar, R., Pal, A., Rakshit, A., & Saha, B. (2021). Properties And Applications Of Amphoteric Surfactant: A Concise Review. In *Journal Of Surfactants And Detergents* (Vol. 24, Number 5, Pp. 709–730). John Wiley And Sons Inc. <https://doi.org/10.1002/jsde.12542>
- Setiawan, I. P. P. (2017). *Penentuan Tegangan Permukaan Dengan Metode Dynouy*. <https://doi.org/10.13140/Rg.2.2.13180.96648>
- Silvia Sianiar, D., Gede Ratna Juliasih, N. L., & Abadi Kiswandono, A. (2021). Pembuatan Sabun Cair Cuci Piring Berbasis Surfaktan Sodium Lauryl Sulfate. *Analit:Analytical And Environmental Chemistry*, 6(02), 188–196. <https://doi.org/10.23960/Aec.V6.I2.2021.P188-196>
- Sudersan, P., Müller, M., Hormozi, M., Li, S., Butt, H. J., & Kappl, M. (2023). Method To Measure Surface Tension Of Microdroplets Using Standard Afm Cantilever Tips. *Langmuir*, 39(30), 10367–10374. <https://doi.org/10.1021/acs.langmuir.3c00613>
- Sujatha, S., & Assistant Professor, -. (2023). Exploration Of Musa Paradisiaca L. Pseudostem Exudate And Its Antibacterial Influence Against The Causative Agents Of Urolithiatic Bacterial Species. In *Jetir2301490 Journal Of Emerging Technologies And Innovative Research* (Vol. 10). [Www.jetir.org](http://www.jetir.org)

- Wahyudin Fathona, I., & Suhendi, A. (2019). *Studi Sistem Pengukuran Surface Tension Menggunakan Metode Cincin Du Nouy Study Of Surface Tension Measurement System Using Du Nouy Ring Method*.
- Warsih, D., Konit Istiqomah, I., Luthfiah, & Malik, A. (2024). Determining Surface Tension Of Liquids: Molecular Mechanisms And Practical Applications. *Al-Khazini: Jurnal Pendidikan Fisika*, 4(2), 61–69. <https://doi.org/10.24252/Al-Khazini.V4i2.47399>
- Washil, A., Diana, ;, & Dewi, C. (2009). *Penentuan Surfaktan Anionik Menggunakan Ekstraksi Sinergis Campuran Ion Asosiasi Malasit Hijau Dan Metilen Biru Secara Spektrofotometri Tampak*.
- Widiawati, H., Maherawati, M., & Hartanti, L. (2023). Karakteristik Ekstrak Saponin Pada Daun Kucai (*Allium Schoenoprasum*) Asal Pontianak. *Foodtech: Jurnal Teknologi Pangan*, 6(2), 1–5. <https://doi.org/10.26418/Jft.V6i2.74244>
- Wulan, A., Swasono, P., Dei, P., Sianturi, E., & Masyithah, Z. (2012). Sintesis Surfaktan Alkil Poliglikosida Dari Glukosa Dan Dodekanol Dengan Katalis Asam. In *Jurnal Teknik Kimia Usu* (Vol. 1, Number 1).
- Wulan Juni, E., Arnelli, & Sriatun. (2012). *Jurnal Kimia Sains Dan Aplikasi* 15 (1) (2012) : 24-28. 24–28.
- Xu, M., Wan, Z., & Yang, X. (2021). Recent Advances And Applications Of Plant-Based Bioactive Saponins In Colloidal Multiphase Food Systems. In *Molecules* (Vol. 26, Number 19). Mdpi. <https://doi.org/10.3390/Molecules26196075>
- Yaser Chemical. (2024). *Unlocking The Secrets Of Dishwashing Liquid Formula*. <https://yaserchem.com/unlocking-the-secrets-of-dishwashing-liquid-formula/>
- Yu, X. L., & He, Y. (2018). Tea Saponins: Effective Natural Surfactants Beneficial For Soil Remediation, From Preparation To Application. In *Rsc Advances*

(Vol. 8, Number 43, Pp. 24312–24321). Royal Society Of Chemistry.  
<https://doi.org/10.1039/C8ra02859a>

Yuli Handayani, K., Sri Rezki, A., Gus Fahmi, A., & Syahjoko Saputra, I. (2022).  
Formulasi Sabun Cair Cuci Piring Menggunakan Ekstrak Air Tanaman Lidah  
Buaya (Aloe Vera L.) Formulation Of Dishwashing Liquid Soap Using The  
Aqueous Plant Extract Of (Aloe Vera L.). In *Medical Sains : Jurnal Ilmiah  
Kefarmasian* (Vol. 7, Number 2).

Zega, B., & Andi Prasition Gea, G. (2025). *Analisis Pengaruh Tegangan  
Permukaan Pada Sistem Mikrofluida*.

