

DAFTAR PUSTAKA

- Adaikalam, K., Hussain, S., Anbu, P., Rajaram, A., Sivanesan, I., & Kim, H. S. (2024). Eco-Friendly Facile Conversion of Waste Eggshells into CaO Nanoparticles for Environmental Applications. *Nanomaterials*, *14*(20), 1620. <https://doi.org/10.3390/nano14201620>
- Ahmad, A., Putri, S. E., & Syahrir, M. (2021). Pengaruh pH terhadap massa kristal tunggal kalsium tartrat tetrahidrat (CaTT) dari limbah cangkang telur ayam dengan metode gel metasilikat. *Chemical: Jurnal Ilmiah Kimia dan Pendidikan Kimia*, *22*(2), 27–35. <https://doi.org/10.35580/chemica.v22i2.26205>
- Aigbe, U. O., & Osibote, O. A. (2024). Green synthesis of metal oxide nanoparticles and their various applications. *Journal of Hazardous Materials Advances*, *13*, 100401. <https://doi.org/10.1016/j.hazadv.2024.100401>
- Aisy, L. A. R., Kemala, T., Suryanegara, L., & Purwaningsih, H. (2024). Isolation and Characterization of Cellulose Nanofibrils (CNF) from Dates by-Product via Citric Acid Hydrolysis. *Science and Technology Indonesia*, *9*(4), 818–827. <https://doi.org/10.26554/sti.2024.9.4.818-827>
- Ali, A., Zhang, N., & Santos, R. M. (2023). Mineral characterization using scanning electron microscopy (SEM): A review of the fundamentals, advancements, and research directions. *Applied Sciences*, *13*(23), 12600. <https://doi.org/10.3390/app132312600>
- Almafie, M. R., Royani, I., & Sriyanti, I. (2026). Synthesis of microcrystalline cellulose from oil palm empty fruit bunches through sequential chemical processing. *Results in Engineering*, *29*, 109091. <https://doi.org/10.1016/j.rineng.2026.109091>
- Angelina, E., Noviardiyanti, F. Z., Pujiastuti, C., Muljani, S., Sumada, K., Raya Rungkut Madya No., J., & Timur, J. (2024). Sintesa dan karakterisasi nanopartikel kalsium oksida dari cangkang telur dengan metode

- presipitasi. *Jurnal Teknik Kimia*, 18(2), 127-132.
<https://doi.org/10.1088/1757-899X/1282/1/012034>
- Assi, S. A., & Shawkat, S. M. (2024). Characterization of Nano Calcium Carbonate Extracted from Eggshells. *Materials Today: Proceedings*, 84, 112-118. <https://doi.org/10.1016/j.matpr.2023.12.045>
- Babalola, B. M., & Wilson, L. D. (2024). Valorization of Eggshell as Renewable Materials for Sustainable Biocomposite Adsorbents—An Overview. In *Journal of Composites Science*, 8(10). <https://doi.org/10.3390/jcs8100414>
- Bano, S., & Pillai, S. (2020). Green synthesis of calcium oxide nanoparticles at different calcination temperatures. *World Journal of Science, Technology and Sustainable Development*, 17(3), 283–295. <https://doi.org/10.1108/WJSTSD-12-2019-0087>
- Ben Ali, N., Abdedayem, A., Nouri, H., & Ben-Ali, S. (2024). Cellulose extraction by biomass valorization of prickly pear seed waste. *Comptes Rendus Chimie*, 27, 45–53. <https://doi.org/10.5802/crchim.369>
- Bhuvaneshwari, V., Sonia, S., & Sivaganesh, D. (2024). Harnessing the potency of eco-friendly calcium oxide derived from eggshells for enhanced photocatalytic activity and biocompatibility evaluation in HepG2 cell line. *Chemical Physics Impact*, 9, 100699. <https://doi.org/10.1016/j.chphi.2024.100699>
- Bijelic, A., & Rompel, A. (2018). Polyoxometalates: More than a phasing tool in protein crystallography. *ChemTexts*, 4(3), 6. <https://doi.org/10.1007/s40828-018-0064-1>
- BPS. (2024). *Produksi telur ayam petelur menurut provinsi (ton), 2024*. <https://www.bps.go.id/id/statistics-table/2/NDkxIzI=/produksi-telur-ayam-petelur-menurut-provinsi.html>
- Buzea, C., Pacheco, I. I., & Robbie, K. (2007). Nanomaterials and nanoparticles: sources and toxicity. *Biointerphases*, 2(4), MR17–MR71. <https://doi.org/10.1116/1.2815690>

- Cahya Fajrah, M., & Marfuah, N. (2015). Identification of Calcium Carbonate (CaCO_3) Characteristics from Different Kinds of Poultry Eggshells Using X-Ray Diffraction (XRD) and Fourier Transformation Infra-Red (FTIR). *Jurnal kimia Sains dan Aplikasi*, 28(2), 45-50. <https://doi.org/10.2991/icopia-14.2015.27>
- Cao, S., Luo, X., Han, X., Lu, X., & Zou, C. (2022). Development of a New Modified $\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$ Composite Phase Change Material. *Energies*, 15(3), 824. <https://doi.org/10.3390/en15030824>
- Chaiwarit, T., Chanabodeechalermrung, B., Kantrong, N., Chittasupho, C., & Jantrawut, P. (2022). Fabrication and Evaluation of Water Hyacinth Cellulose-Composited Hydrogel Containing Quercetin for Topical Antibacterial Applications. *Gels*, 8(12), 767. <https://doi.org/10.3390/gels8120767>
- Criado, Y. A., Alonso, M., & Abanades, J. C. (2014). Kinetics of the $\text{CaO}/\text{Ca}(\text{OH})_2$ hydration/dehydration reaction for thermochemical energy storage applications. *Energy Procedia*, 49, 2132-2141. <https://doi.org/10.1016/j.egypro.2014.03.230>
- Darčanova, O., Beganskiene, A., & Kareiva, A. (2015). Sol-gel synthesis of calcium nanomaterial for paper conservation. *Chemija*, 26(1), 25–31. <https://doi.org/10.6001/chemija.2015.26.1.4>
- Dhivya, B., Sujatha, K., & Sudha, A. P. (2020). Facile synthesis of calcium oxide nanoparticles from the carica papaya leaf extract with the significantly enhanced antibacterial activity. *Nanoscale Reports*, 3(1), 1–9. <https://doi.org/10.26524/nr.3.1>
- Diode, Y., Siti, A., & Wikanastri, H. (2017). Kadar kalsium dan karakteristik fisik tepung cangkang telur unggas dengan perendaman berbagai pelarut. *Jurnal Pangan dan Gizi*, 7(2), 82–93. <https://jurnal.unimus.ac.id/index.php/JPDG/article/view/3179>
- Distantina, S., Nainggolan, I. D., Fernando, Y. I., & Kaavessina, M. (2025). Preparation and Flocculation Performance of Polyacrylamide Grafted Banana Stem Cellulose: Effect of Acrylamide and Ammonium

- Peroxydisulfate. *Equilibrium Journal of Chemical Engineering*, 9(2), 81. <https://doi.org/10.20961/equilibrium.v9i2.110187>
- Domrongpokkaphan, V., & Khemkhao, M. (2017). Calcium chloride produced from eggshell for vegetable washing. *Journal of Applied Science*, 16(2), 1–7. <https://doi.org/10.14416/j.appsci.2017.09.001>
- Etale, A., Onyianta, A. J., Turner, S. R., & Eichhorn, S. J. (2023). Cellulose: A Review of Water Interactions, Applications in Composites, and Water Treatment. *Chemical Reviews*, 1123(5), 2016-2048. <https://doi.org/10.1021/acs.chemrev.2c00477>
- Fajaroh, F. (2018). Sintesis nanopartikel dengan prinsip kimia hijau. *Prosiding Seminar Nasional Kimia dan Pembelajarannya (SNKP)*, 24–32. <http://www.understandingnano.com/nanoparticles.html>
- Fan, W. W. W., Gualtieri, A. F., Hamilton, A., Patel, J. P., & Salmond, J. A. (2025). Determining factors affecting the accuracy of SEM-EDX data-based quantitative chemical analysis for identifying naturally occurring individual carcinogenic erionite fibers. *Scientific Reports*, 15(1). <https://doi.org/10.1038/s41598-025-09551-5>
- García, Y. C., Martínez, I., & Grasa, G. (2024). Determination of the hydration and carbonation kinetics of CaO for low-temperature applications. *Chemical Engineering Science*, 295, 120146. <https://doi.org/10.1016/j.ces.2024.120146>
- Garg, R., Garg, R., Eddy, N. O., Abdulraheem, M. I., Hazzan, O. O., & Abdi, G. (2025). Green synthesis of calcium oxide nanocatalyst and application in transesterification of waste cooking oil. *Bioresources and Bioprocessing*, 12(1), Article 22. <https://doi.org/10.1186/s40643-025-00879-4>
- Geminiani, L., Campione, F. P., Corti, C., Luraschi, M., Motella, S., Recchia, S., & Rampazzi, L. (2022). Differentiating between Natural and Modified Cellulosic Fibres Using ATR-FTIR Spectroscopy. *Heritage*, 5(4), 4114–4139. <https://doi.org/10.3390/heritage5040213>

- Habte, L., Shiferaw, N., Mulatu, D., Thenepalli, T., Chilakala, R., & Ahn, J. W. (2019). Synthesis of nano-calcium oxide from waste eggshell by sol-gel method. *Sustainability*, *11*(11), 3196. <https://doi.org/10.3390/su11113196>
- Hakim, F., Ramadhanti, B. Q., Wafi, I. H., Yulinda, R. A., Melisanti, R., Shafiyah, S., & Sulaiman, F. (2021). Potensi kompos kombinasi eceng gondok (*Eichhornia crassipes*) dan azolla (*Azolla* sp.) sebagai pupuk pada pertanian organik. *Prosiding Seminar Nasional Lahan Suboptimal, Universitas Sriwijaya*, 587–594. <https://conference.unsri.ac.id/index.php/lahansuboptimal/article/view/2235>
- Hanifah, H. N., Ginayanti, H., Cucun, C., Alma, D., & Ita, I. (2022). Perbandingan efektivitas cangkang telur ayam dan cangkang telur bebek sebagai bioadsorben logam Zn dengan metode spektrofotometri serapan atom (SSA). *Jurnal Sabdariffarma: Jurnal Ilmiah Farmasi*, *10*(2), 1-11. <https://journal2.unfari.ac.id/index.php/sabdariffarma/article/view/502>
- Hayyat, M. U., Nawaz, R., Irfan, A., Al-Hussain, S. A., Aziz, M., Siddiq, Z., Ahmad, S., & Zaki, M. E. A. (2023). Evaluating the Phytoremediation Potential of *Eichhornia crassipes* for the Removal of Cr and Li from Synthetic Polluted Water. *International Journal of Environmental Research and Public Health*, *20*(4), 3512. <https://doi.org/10.3390/ijerph20043512>
- He, T., Sun, W., Huo, H., Kononova, O., Rong, Z., Tshitoyan, V., Botari, T., & Ceder, G. (2020). Similarity of Precursors in Solid-State Synthesis as Text-Mined from Scientific Literature. *Chemistry of Materials*, *32*(18), 7861–7873. <https://doi.org/10.1021/acs.chemmater.0c02553>
- Hemmami, H., Zeghoud, S., Ben Amor, I., Alnazza Alhamad, A., Tliba, A., Alsalme, A., Cornu, D., Bechelany, M., & Barhoum, A. (2024). Green synthesis of CaO nanoparticles from chicken eggshells: Antibacterial, antifungal, and heavy metal (Pb^{2+} , Cr^{2+} , Cd^{2+} and Hg^{2+}) adsorption

- properties. *Frontiers in Environmental Science*, 12, 1450485.
<https://doi.org/10.3389/fenvs.2024.1450485>
- Horvat, G., Pantić, M., Knez, Ž., & Novak, Z. (2022). A Brief Evaluation of Pore Structure Determination for Bioaerogels. *Gels* 8(7), 438.
<https://doi.org/10.3390/gels8070438>
- Utami, I. A., Arnata, I. W., & Dewi, A. (2022). The effect of hydrogen peroxide concentration and bleaching process time on the characteristics of coconut fiber cellulose (*Cocos nucifera* L.). *Jurnal Bahan Alam Terbarukan*, 10(3), 228–235.
<https://doi.org/10.15294/jbat.v10i3.35491>
- Ikram, M., Khalid, A., Shahzadi, A., Haider, A., Naz, S., Naz, M., Shahzadi, I., Ul-Hamid, A., Haider, J., Nabgan, W., & Butt, A. R. (2022). Enhanced photocatalytic degradation with sustainable CaO nanorods doped with Ce and cellulose nanocrystals: In silico molecular docking studies. *ACS Omega*, 7(31), 27503–27515.
<https://doi.org/10.1021/acsomega.2c02732>
- Jadhav, V., Bhagare, A., Wahab, S., Lokhande, D., Vaidya, C., Dhayagude, A., Khalid, M., Aher, J., Mezni, A., & Dutta, M. (2022). Green synthesized calcium oxide nanoparticles (CaO NPs) using leaves aqueous extract of *Moringa oleifera* and evaluation of their antibacterial activities. *Journal of Nanomaterials*, 2022, 9047507.
<https://doi.org/10.1155/2022/9047507>
- Kamran, U., Jamal, H., Siddiqui, M. I. H., & Park, S. J. (2023). Surfactant-Capped Silver-Doped Calcium Oxide Nanocomposite: Efficient Sorbents for Rapid Lithium Uptake and Recovery from Aqueous Media. *Water*, 15(19), 3368. <https://doi.org/10.3390/w15193368>
- Kantasa, P., Obormkul, A., & Tangboriboon, N. (2025). Multifunctional role of calcium chloride in improving the chemical, mechanical, and physical properties of natural and synthetic rubber latex for gloves and transdermal patch films. *Industrial Crops and Products*, 223, 120183.
<https://doi.org/10.1016/j.indcrop.2024.120183>

- Karunadasa, S. (2019). Dehydration of calcium chloride as examined by high-temperature X-ray powder diffraction. *Journal of Thermal Analysis and Calorimetry*, 136(4), 1535–1543. <https://doi.org/10.1007/s10973-018-7821-5>
- Kasi, G., Stalin, N., Rachtanapun, P., Jantanasakulwong, K., Halder, J. N., Phongthai, S., Worajittiphon, P., Seo, J., & Thanakkasaranee, S. (2025). Effect of Calcination Temperatures on Crystallite Size, Particle Size, and Antimicrobial Activity of Synthesized MgO and Its Cytotoxicity. *International Journal of Molecular Sciences*, 26(10), 4868. <https://doi.org/10.3390/ijms26104868>
- Kharin, A. Y. (2020). Deep learning for scanning electron microscopy: Synthetic data for the nanoparticles detection. *Ultramicroscopy*, 219, 113125. <https://doi.org/10.1016/j.ultramic.2020.113125>
- Khursheed, A. (2024). Scanning electron microscopy. In R. C. Dynes, S. Satpathy, & E. Y. Tsymbal (Eds.), *Encyclopedia of condensed matter physics* (pp. 36–50). Elsevier. <https://doi.org/10.1016/B978-0-323-90800-9.00128-1>
- Lee, S. H., & Min, D. J. (2020). A novel electrochemical process for desulfurization in the CaO-SiO₂-Al₂O₃ system. *Materials*, 13(11), 2478. <https://doi.org/10.3390/ma13112478>
- Madhu, B. J., Bhagyalakshmi, H., Shruthi, B., & Veerabhadraswamy, M. (2021). Structural, AC conductivity, dielectric and catalytic behavior of calcium oxide nanoparticles derived from waste eggshells. *SN Applied Sciences*, 3(6), 607. <https://doi.org/10.1007/s42452-021-04607-3>
- Madhushree, M., Vairavel, P., Mahesha, G. T., & Bhat, K. S. (2024). A Comprehensive Review of Cellulose and Cellulose-Based Materials: Extraction, Modification, and Sustainable Applications. *Journal of Natural Fibers*, 21(1), 2418357. <https://doi.org/10.1080/15440478.2024.2418357>

- Mahato, P. L., Weatherby, T., Ewell, K., Jha, R., & Mishra, B. (2024). Scanning electron microscope-based evaluation of eggshell quality. *Poultry Science*, *103*(3), 103428. <https://doi.org/10.1016/j.psj.2024.103428>
- Masta, N. (2020). BMP scanning electron microscopy. *Microscopy Today*, *28*(3), 22–27. <https://doi.org/10.1017/S1551929520000450>
- Mazher, M., Ishtiaq, M., Hamid, B., Haq, S. M., Mazhar, A., Bashir, F., Mazhar, M., Mahmoud, E. A., Casini, R., Alataway, A., Dewidar, A. Z., & Elansary, H. O. (2023). Biosynthesis and characterization of calcium oxide nanoparticles from *Citrullus colocynthis* fruit extracts; their biocompatibility and bioactivities. *Materials*, *16*(7), 2768. <https://doi.org/10.3390/ma16072768>
- Mohamed, M. A., Jaafar, J., Ismail, A. F., Othman, M. H. D., & Rahman, M. A. (2017). Fourier transform infrared (FTIR) spectroscopy. In N. Hilal, A. F. Ismail, T. Matsuura, & D. Oatley-Radcliffe (Eds.), *Membrane characterization* (pp. 3–29). Elsevier. <https://doi.org/10.1016/B978-0-444-63776-5.00001-2>
- Mondal, M. S., Hussain, S. Z., Roy, P., & Halder, C. (2023). Development of high-performance composite via innovative route using water hyacinth extracted nanocellulose and analysis of its physical properties. *Heliyon*, *9*(12), e23095. <https://doi.org/10.1016/j.heliyon.2023.e23095>
- Muleta, W. S., Denboba, S. M., & Bayu, A. B. (2024). Corn cob-supported calcium oxide nanoparticles from hen eggshells for cadmium (Cd-II) removal from aqueous solutions; Synthesis and characterization. *Heliyon*, *10*(6), e27767. <https://doi.org/10.1016/j.heliyon.2024.e27767>
- Naik, T. S. S. K., Singh, S., Narasimhappa, P., Varshney, R., Singh, J., Khan, N. A., Zahmatkesh, S., Ramamurthy, P. C., Shehata, N., Kiran, G. N., & Sunil, K. (2023). Green and sustainable synthesis of CaO nanoparticles: Its solicitation as a sensor material and electrochemical detection of urea. *Scientific Reports*, *13*(1), 19248. <https://doi.org/10.1038/s41598-023-46728-2>

- Nandiyanto, A. B. D., Oktiani, R., & Ragadhita, R. (2019). How to read and interpret FTIR spectroscopy of organic material. *Indonesian Journal of Science and Technology*, 4(1), 97-118. <https://doi.org/10.17509/ijost.v4i1.15806>
- Naseer, U., Mushtaq, A., Ali, M., Ali, M., Ahmad, A., Yousaf, M., & Yue, T. (2024). Fabrication of CaCO₃ Microcubes and Mechanistic Study for Efficient Removal of Pb from Aqueous Solution. *Materials*, 17(22), 5523. <https://doi.org/10.3390/ma17225523>
- Nasir, G., Batool, F., Noreen, S., Gondal, H. Y., Mustaqeem, M., Saeed, Z., Gul, Y., Ur Rehman, F., & Ali, H. M. (2024). Biosynthesis of calcium oxide nanoparticles by employing mulberry (*Morus nigra*) leaf extract as an efficient source for rhodamine B remediation. *Scientific Reports*, 14(1), 71172. <https://doi.org/10.1038/s41598-024-71172-1>
- Niu, Y. Q., Liu, J. H., Aymonier, C., Fermani, S., Kralj, D., Falini, G., & Zhou, C. H. (2022). Calcium carbonate: controlled synthesis, surface functionalization, and nanostructured materials. In *Chemical Society Reviews*, 51(18), 7883-7943. <https://doi.org/10.1039/d1cs00519g>
- Nur Arofik, H., & Muchtaromah, B. (2023). Aplikasi teknologi nanopartikel pada pengobatan kanker. *ULIL ALBAB: Jurnal Ilmiah Multidisiplin*, 2(4), 1578–1585. <https://doi.org/10.56799/jim.v2i4.1464>
- Oko, S., & Feri, M. (2019). Pengembangan katalis CaO dari cangkang telur ayam dengan impregnasi KOH dan aplikasinya terhadap pembuatan biodiesel dari minyak jarak. *Jurnal Teknologi*, 11(2), 103–110. <https://doi.org/10.24853/jurtek.11.2.103-110>
- Owuamanam, S., & Cree, D. (2020). Progress of bio-calcium carbonate waste eggshell and seashell fillers in polymer composites: A review. *Journal of Composites Science*, 4(2), 70. <https://doi.org/10.3390/jcs4020070>
- Pasieczna-Patkowska, S., Cichy, M., & Flieger, J. (2025). Application of Fourier transform infrared (FTIR) spectroscopy in characterization of green synthesized nanoparticles. *Molecules*, 30(3), 684. <https://doi.org/10.3390/molecules30030684>

- Pasupathy, S., & Rajamanickam, M. (2019). Synthesis of pure and bio-modified calcium oxide (CaO) nanoparticles using waste chicken eggshells and evaluation of its antibacterial activity. *International Journal of Pharmaceutical Sciences and Research*, 10(10), 4731–4737. [https://doi.org/10.13040/IJPSR.0975-8232.10\(10\).4731-37](https://doi.org/10.13040/IJPSR.0975-8232.10(10).4731-37)
- Rachmawati Zakiyah. (2019). *Analisis struktur kristal, ukuran kristal, kristalinitas, dan daya serap iodine pada arang aktif eceng gondok berdasarkan variasi suhu karbonisasi* (Skripsi). Universitas Negeri Semarang. <https://lib.unnes.ac.id/>
- Rasheed, H. A., Adeleke, A. A., Nzerem, P., Olosho, A. I., Ogedengbe, T. S., & Jesuloluwa, S. (2024). Isolation, characterization and response surface method optimization of cellulose from hybridized agricultural wastes. *Scientific Reports*, 14(1), 65229. <https://doi.org/10.1038/s41598-024-65229-4>
- Ratnani, R. D., Hartati, I., & Kurniasari, L. (2024). Pemanfaatan eceng gondok (*Eichhornia crassipes*) untuk menurunkan kandungan COD (Chemical Oxygen Demand), pH, bau, dan warna pada limbah cair tahu. *Majalah Ilmiah Momentum*, 7(1), 41–47. <https://doi.org/10.36499/jim.v7i1.296>
- Refaat, A., Elhaes, H., & Ibrahim, M. A. (2023). Effect of alkali metals on physical and spectroscopic properties of cellulose. *Scientific Reports*, 13(1), 48850. <https://doi.org/10.1038/s41598-023-48850-7>
- Rezania, S., Darajeh, N., Rupani, P. F., Mojiri, A., Kamyab, H., & Taghavijeloudar, M. (2024). Recent Advances in the Adsorption of Different Pollutants from Wastewater Using Carbon-Based and Metal-Oxide Nanoparticles. *Applied Sciences*, 14(24), 11492. <https://doi.org/10.3390/app142411492>
- Riyanto, C. A., Prabalaras, E., & Martono, Y. (2020). Karakterisasi nanopartikel karbon aktif dari daun eceng gondok (*Eichhornia crassipes*) berdasarkan variasi suhu dan waktu aktivasi. *Jurnal Kimia dan Kemasan*, 42(2), 85–92. <https://doi.org/10.24817/jkk.v42i2.5633>

- Rodríguez-Negrete, E. V., Morales-González, Á., Madrigal-Santillán, E. O., Sánchez-Reyes, K., Álvarez-González, I., Madrigal-Bujaidar, E., Valadez-Vega, C., Chamorro-Cevallos, G., Garcia-Melo, L. F., & Morales-González, J. A. (2024). Phytochemicals and Their Usefulness in the Maintenance of Health. *Plants*, *13*(4), 532. <https://doi.org/10.3390/plants13040523>
- Sazali, N. B., Chan, L. W., & Wong, T. W. (2023). Nano-enabled agglomerates and compact: Design aspects of challenges. In *Asian Journal of Pharmaceutical Sciences*, *18*(2), 100794. <https://doi.org/10.1016/j.ajps.2023.100794>
- Sharma, H., Lal, R., Pandey, M., & Shrivastav, A. (2023). Biosynthesis of CaO nanoparticles using *Cleome viscosa* leaf extract and investigation of their antioxidative and cytotoxicity activity. *Oriental Journal of Chemistry*, *39*(1), 189–196. <https://doi.org/10.13005/ojc/390123>
- Simpem, I. N., Winaya, I. N. S., Suarsana, I. K., & Sugita, I. K. G. (2024). Green nanocomposite of silica-supported CaO: synthesis by sol-gel method and characterization. *EUREKA: Physics and Engineering*, *2024*(6), 151-161. <https://doi.org/10.21303/2461-4262.2024.003407>
- Su, B. L. (2021). New journal: Chemical Synthesis. *Chemical Synthesis*, *1*(1), 1. <https://doi.org/10.20517/cs.2021.01>
- Sunardi, S., Krismawati, E. D., & Mahayana, A. (2020). Sintesis dan karakterisasi nanokalsium oksida dari cangkang telur. *Alchemy: Jurnal Penelitian Kimia*, *16*(2), 250-259. <https://doi.org/10.20961/alchemy.16.2.40527.250-259>
- Tkachenko, Y., & Niedzielski, P. (2022). FTIR as a Method for Qualitative Assessment of Solid Samples in Geochemical Research: A Review. *Molecules*, *27*(24), 8846. <https://doi.org/10.3390/molecules27248846>
- Vârban, R., Crişan, I., Vârban, D., Ona, A., Olar, L., Stoie, A., & Ştefan, R. (2021). Comparative ft-ir prospecting for cellulose in stems of some fiber plants: Flax, velvet leaf, hemp and jute. *Applied Sciences*, *11*(18), 8570. <https://doi.org/10.3390/app11188570>

- Verma, P. K., Kundu, A., Poretz, M. S., Dhoonmoon, C., Chegwidan, O. S., Londergan, C. H., & Cho, M. (2018). The Bend+Libration Combination Band Is an Intrinsic, Collective, and Strongly Solute-Dependent Reporter on the Hydrogen Bonding Network of Liquid Water. *Journal of Physical Chemistry B*, *122*(9), 2587–2599. <https://doi.org/10.1021/acs.jpcc.7b09641>
- Villagrán, Z., Anaya-Esparza, L. M., Velázquez-Carriles, C. A., Silva-Jara, J. M., Ruvalcaba-Gómez, J. M., Aurora-Vigo, E. F., Rodríguez-Lafitte, E., Rodríguez-Barajas, N., Balderas-León, I., & Martínez-Esquivias, F. (2024). Plant-Based Extracts as Reducing, Capping, and Stabilizing Agents for the Green Synthesis of Inorganic Nanoparticles. *Resources*, *13*(6), 70. <https://doi.org/10.3390/resources13060070>
- Wang, S., Stahlbuhk, A., & Steiger, M. (2024). Hydration and deliquescence behavior of calcium chloride hydrates. *Fluid Phase Equilibria*, *58*, 114171. <https://doi.org/10.1016/j.fluid.2024.114171>
- Wijaya, D., Yanti, P. P., Rizal, M., & Anwar, R. S. (2015). Screening fitokimia dan aktivitas antioksidan daun eceng gondok (*Eichhornia crassipes*). *Jurnal Kimia Valensi*, *1*(1), 65–69. <https://doi.org/10.15408/jkv.v0i0.4965>
- Wulandari, I. O. (2019). *Pengembangan metode sintesis nanopartikel Fe₃O₄ melalui modifikasi permukaan berbasis biokompatibel molekul sebagai kandidat agen drug delivery* (Skripsi, Universitas Brawijaya). Universitas Brawijaya. <https://repository.ub.ac.id/190321/1/Ika%20Oktavia%20Wulandari.pdf>
- Yani, M., Wardhani, G. A. P. K., & Taufiq, A. (2023). Pembuatan nanopartikel CaO dari cangkang telur ayam menggunakan ekstrak etanol daun salam (*Syzygium polyanthum*). *Jurnal Sains Teknologi & Lingkungan*, *9*(1), 25–34. <https://doi.org/10.29303/jstl.v9i1.408>
- Yao, C., Xie, A., Shen, Y., Zhu, J., & Li, T. (2013). Green synthesis of calcium carbonate with unusual morphologies in the presence of fruit extracts.

Journal of the Chilean Chemical Society, 58(4), 2235–2238.
<https://doi.org/10.4067/S0717-97072013000400072>

Yonata Diode, S., Aminah, S., & Wikanastri, H. (2017). Kadar kalsium dan karakteristik fisik tepung cangkang telur unggas dengan perendaman berbagai pelarut. *Jurnal Pangan dan Gizi*, 7(2), 82–93.
<https://doi.org/10.26714/jpg.7.2.2017.82-93>