



LAPORAN HASIL PENELITIAN

“Sintesa Pupuk Cair Amonium Silikat Dari Sekam Padi Dengan Metode Ekstraksi”

DAFTAR PUSTAKA

- Adediran, A.A., Alaneme, K.K. and Oladele, I.O. (2021) ‘Microstructural characteristics and mechanical behaviour of aluminium matrix composites reinforced with Si-based refractory compounds derived from rice husk’, *Cogent Engineering*, 8(1).
- Allen, J.J. (2005) *Micro Electro Mechanical System Design*. Boca Raton: Taylor & Francis.
- Amini, A.A. dkk. (2025) ‘Pengurangan Kadar Ammonia dalam Limbah Cair Pupuk pada Jet Bubble Column Menggunakan NaOH’, X(2), pp. 12766–12775.
- Arief, M. and Nursangadji (2022) ‘Pertumbuhan Dan Hasil Tanaman Sawi (Brassica Juncea L.) Pada Berbagai Dosis Pupuk NPK’, *Jurnal Agrotekbis*, 10(5), pp. 727–733.
- Asfar, A.M.I.A. dkk. (2021) ‘BIOINSEKTISIDA CAIR BERBASIS SEKAM PADI MELALUI PEMBERDAYAAN KELOMPOK TANI PADA ELO’ DESA SANREGO’, *Jurnal Masyarakat Mandiri*, 5(6), pp. 3366–3377.
- Bai, W. dkk. (2021) ‘Rice husk-based adsorbents for removing ammonia: Kinetics, thermodynamics and adsorption mechanism’, *Journal of Environmental Chemical Engineering*, 9(4), p. 105793. Available at: <https://doi.org/10.1016/j.jece.2021.105793>.
- Ball, D.W. and Key, J.A. (2014) *Introductory Chemistry*. Victoria: Pressbooks.
- Beckhoff, B. dkk. (2006) *Handbook Of Practical X-Ray Fluorescence Analysis*. Berlin: Springer.
- Coates, J. (2000) ‘Interpretation Of Infrared Spectra, A Practical Approach’, *Encyclopedia Of Analytical Chemistry*. John Wiley & Sons, Inc.
- Daulay, A. dkk. (2021) ‘Extraction silica from rice husk with naoh leaching agent with temperature variation burning rice husk’, *Rasayan Journal of Chemistry*, 14(3), pp. 2125–2128. Available at: <https://doi.org/10.31788/RJC.2021.1436351>.
- Eikenberg, J., 1990. On The Problem Of Silica Solubility At High pH. Paul Scherrer Institute, Wurenlingen and Villigen.



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- Fadlelmoula, A. *dkk.* (2022) ‘Fourier Transform Infrared (FTIR) Spectroscopy to Analyse Human Blood over the Last 20 Years: A Review towards Lab-on-a-Chip Devices’, *Micromachines*. MDPI. Available at: <https://doi.org/10.3390/mi13020187>.
- Falah, M.N.A. and Sa’diyah, K. (2024) ‘Pengaruh Rasio Ampas Tahu Terhadap Kualitas Produk Pakan Ikan Nila’, *DISTILAT: Jurnal Teknologi Separasi*, 10(1), pp. 170–179. Available at: <https://doi.org/10.33795/distilat.v10i1.4215>.
- Ghasem, N., Henda, R., 2015. Principles Of Chemical Engineering Processes Material and Energy Balances, Second. ed. CRC Press, Boca Raton.
- Ghosh, R. (2013) ‘A Review Study on Precipitated Silica and Activated Carbon from Rice Husk’, *Journal of Chemical Engineering & Process Technology*, 04(04). Available at: <https://doi.org/10.4172/2157-7048.1000156>.
- Hafez, A.I. (2022) ‘Synthesis of Silica and Silica Compounds Based on Rice Husk Ash: Article Review’, *Water, Energy, Food and Environment*, 3(2), pp. 67–75. Available at: <https://doi.org/10.18576/wefej/010204>.
- Helrich, K., 1990. Official Methods Of Analysis. Association Of Official Analytical Chemists, Boulevard.
- Iler, R.K., 1978. The Chemistry Of Silica Solubility, Polymerization, Colloid and Surface Properties, and Biochemistry. John Wiley & Sons, Inc., New York.
- Kumar, R. *dkk.* (2022) ‘Coupling Effects of Nitrogen and Irrigation Levels on Growth Attributes, Nitrogen Use Efficiency, and Economics of Cotton’, *Frontiers in Plant Science*, 13(1), pp. 1–12. Available at: <https://doi.org/10.3389/fpls.2022.890181>.
- Kumari, V.V., Banerjee, P., Verma, V.C., Sukumaran, S., Chandran, M.A.S., Gopinath, K.A., Venkatesh, G., Yadav, S.K., Singh, V.K., Awasthi, N.K., 2022. Plant Nutrition: An Effective Way to Alleviate Abiotic Stress in Agricultural Crops. *Int. J. Mol. Sci.* 23. <https://doi.org/10.3390/ijms23158519>
- Nielsen, S.S. (1998) *Food Analysis*. Second. Maryland: Aspen Publishers.
- Nurhayati, D.R., 2021. Pengantar Nutrisi Tanaman. UNISRI PRESS, Solo.



LAPORAN HASIL PENELITIAN

“Sintesa Pupuk Cair Amonium Silikat Dari Sekam Padi Dengan Metode Ekstraksi”

- Nzereogu, P.U., Omah, A.D., Ezema, F.I., Iwuoha, E.I., Nwanya, A.C., 2023. Silica extraction from rice husk: Comprehensive review and applications. *Hybrid Adv.* 4, 100111. <https://doi.org/10.1016/j.hybadv.2023.100111>
- Pareek, A. *dkk.* (2010) *Abiotic Stress Adaptation In Plants*. Dordrecht: Springer.
- Purba, T., Situmeang, R., Mahyati, H.F.R., 2021. Pupuk dan Teknologi Pemupukan. Yayasan Kita Menulis, Medan.
- Putra, E.A.P. *dkk.* (2022) ‘PENGARUH WAKTU DAN KONSENTRASI NAOH PADA EKSTRAKSI SILIKA (SIO₂) DARI LIMBAH FLY ASH BATUBARA’, *Jurnal Teknologi Kimia Mineral*, 1(2), pp. 56–59.
- Putri, R. *dkk.* (2022) ‘KARAKTERISTIK SILIKA DARI SEKAM PADI BERDASARKAN VARIASI WAKTU DAN SUHU PEMBAKARAN’, *Seminar Nasional Fakultas Teknik Universitas Malikussaleh*, 1(1), pp. 906–911.
- Puspitasari, L., Mareta, S. and Thalib, A. (2021) ‘Karakterisasi senyawa kimia daun mint (*Mentha sp.*) dengan metode FTIR dan kemometrik’, *Sainstech Farma Jurnal Ilmu Kefarmasian*, 14(1), pp. 5–11.
- Qurrohman, B.F.T. and Ginandjar, S. (2018) *Ekstrak Silika Sekam Padi*. Bandung: Pusat Penelitian dan Penerbitan UIN Bandung.
- Rahim, H. *dkk.* (2023) ‘The effect of NaOH concentration on silica leaching process from rice husk ash in South Sulawesi Province, Indonesia’, *Jurnal Rekayasa Proses*, 17(1), pp. 1–5. Available at: <https://doi.org/10.22146/jrekpros.81242>.
- Riza, M., Fachraniah and Syafruddin (2022) ‘Pembuatan Silika Gel dari Abu Sekam Padi dengan Pereaksi Asam Kuat dan Asam Lemah dengan Menggunakan Variasi Jumlah Abu Silikat’, *Jurnal Teknologi*, 22(2), pp. 55–62. Available at: <https://doi.org/10.30811/teknologi.v22i2.3116>.
- Rochmah, N. *dkk.* (2022) ‘Pengaruh Abu Sekam Sebagai Substitusi Semen Pada Kuat Tekan Flowing Concrete’, *Axial : Jurnal Rekayasa Dan Manajemen Konstruksi*, 10(1), p. 019. Available at: <https://doi.org/10.30742/axial.v10i1.2172>.



LAPORAN HASIL PENELITIAN

“Sintesa Pupuk Cair Amonium Silikat Dari Sekam Padi Dengan Metode Ekstraksi”

- Skoog, D.A., West, D.M., Holler, F.J., 2013. *Fundamentals of Analytical Chemistry*. Mary Finch, USA.
- Sohaimi, K.S.A. *dkk.* (2021) ‘Ammonium Adsorption - Desorption Using Rice Husk Biochar’, *IOP Conference Series: Earth and Environmental Science*, 765(1), pp. 1–10. Available at: <https://doi.org/10.1088/1755-1315/765/1/012061>.
- Sutisna, N.A., Rahmiati, F. and Amin, G. (2021) ‘Optimalisasi Pemanfaatan Sekam Padi Menjadi Briket Arang Sekam untuk Menambah Pendapatan Petani di Desa Sukamaju, Jawa Barat’, *Agro Bali: Agricultural Journal*, 4(1), pp. 116–126. Available at: <https://doi.org/10.37637/ab.v4i1.691>.
- Todkar, B.S., Deorukhkar, O.A., Deshmukh, S.M., 2016. Extraction of Silica from Rice Husk. *Int. J. Eng. Res. Dev.* 12, 69–74. <https://doi.org/10.1042/cs0840231>
- Verma, K.K., Song, X.P., Tian, D.D., Guo, D.J., Chen, Z.L., Zhong, C.S., Nikpay, A., Singh, M., Rajput, V.D., Singh, R.K., Minkina, T., Li, Y.R., 2021. Influence of silicon on biocontrol strategies to manage biotic stress for crop protection, performance, and improvement. *Plants* 10, 1–22. <https://doi.org/10.3390/plants10102163>
- Xiong, Q., Hu, J., Wei, H., Zhang, H., Zhu, J., 2021. Relationship between plant roots, rhizosphere microorganisms, and nitrogen and its special focus on rice. *Agric. Switz.* 11, 1–18. <https://doi.org/10.3390/agriculture11030234>
- Xu, D. *dkk.* (2022) ‘The development road of ammonium phosphate fertilizer in China’, *Chinese Journal of Chemical Engineering*, 41(1), pp. 170–175. Available at: <https://doi.org/10.1016/j.cjche.2021.08.015>.
- Yan, S., Yin, D., He, F., 2022. Characteristics of smoldering on moist rice husk for silica production. *Sustain. Switz.* 14. <https://doi.org/10.3390/su14010317>
- Zainal, S., Tajuddin, R.H., Yusof, N.F.M., 2024. Synthesis and Characterization of Liquid-Silicate Fertilizer From Treated and Untreated Ash Rice Husk. *Malays. J. Anal. Sci.* 28, 1–9.
- Zamhari (2023) *5 Cara Pemanfaatan Sekam Padi Secara Maksimal*. Jakarta: Elementa Agro Lestari.



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“Sintesa Pupuk Cair Amonium Silikat Dari Sekam Padi Dengan Metode Ekstraksi”

Zuwanna, I. *dkk.* (2023) ‘Preparation and characterization of silica from rice husk ash as a reinforcing agent in whey protein isolate biocomposites film’, *South African Journal of Chemical Engineering*, 44, pp. 337–343. Available at: <https://doi.org/10.1016/j.sajce.2023.03.005>.