

DAFTAR PUSTAKA

- [1] G. Gala, J. L. Aljabar, and D. Aminin, “Analisis Kandungan Logam Fe pada Air Sungai di Kabupaten Musi Banyuasin dengan Spektrofotometer Serapan Atom (SSA),” *Pros. Semin. Nas. Sains dan Teknol.*, vol. 5, pp. 353–357, 2022.
- [2] F. Retno, W. Silalahi, M. Zainuri, D. Sri, and Y. Wulandari, “Studi Kandungan Logam Berat Timbal (Pb) dan Seng (Zn) di Perairan Muara Sungai Cisadane Kabupaten Tangerang,” *Indones. J. Oceanogr.*, vol. 01, no. 01, pp. 1–6, 2023, [Online]. Available: <https://ejournal2.undip.ac.id/index.php/ijoce>
- [3] R. Fitrianingih and E. L. Widiastuti, “Kandungan Logam Berat Cr , Cu , Fe DAN Mn Pada Beberapa Biota Di Pesisir Teluk Ratai Pesawaran, Lampung,” *Pros. SNaIL 2021 Semin. Nas. ILMU Lingkungan.*, vol. 3257, no. 2003, pp. 68–74, 2021.
- [4] R. Wulandari, “Penentuan Kandungan Logam Berat Besi (Fe), Kromium (Cr), dan Tembaga (Cu) Pada Sedimen, Air dan Plankton Pesisir Pulau Sertung Secara Spektrofotometri Serapan Atom (SSA),” *SKRIPSI*, 2023.
- [5] F. S. Polapa, R. N. Annisa, and D. Yanuarita, “Quality Indeks dan Konsentrasi Logam Berat dalam Perairan dan Sedimen di Perairan Kota Makassar,” *J. Ilmu Lingkungan.*, vol. 20, no. 2, pp. 271–278, 2022, doi:

10.14710/jil.20.2.271-278.

- [6] N. I. Ishak, E. Ishak, I. J. Effendy, and L. Fekri, "Analisis Kandungan Logam Berat Pada Air Sungai Martapura , Provinsi Kalimantan Selatan Tahun 2022," *J. Sains*, vol. 7, no. 1, pp. 35–41, 2023.
- [7] Atikah, "Penyisihan Logam Dalam Limbah Cair Kerajinan Tenun Songket Dengan Metode Elektrokimia," *Junal Tek.*, vol. 6, pp. 17–25, 2021.
- [8] B. World, "World Bank Group Partnership Fund for the Sustainable Development Goals - Annual report 2019," pp. 1–23, 2018, [Online]. Available: <file:///C:/Users/soure/Downloads/World-Bank-Group-Partnership-Fund-for-the-Sustainable-Development-Goals-Annual-Report-2019.pdf>
- [9] N. Ahmad, F. Suryani Arsyad, I. Royani, P. Mega Syah Bahar Nur Siregar, T. Taher, and A. Lesbani, "High regeneration of ZnAl/NiAl-Magnetite humic acid for adsorption of Congo red from aqueous solution," *Inorg. Chem. Commun.*, vol. 150, no. January, p. 110517, 2023, doi: 10.1016/j.inoche.2023.110517.
- [10] G. A. Wardani, M. Fathurohman, and S. Nurlida, "Analisis cemaran ion kobalt(ii) dalam limbah cair rumah sakit dan penanggulangannya," *Semin. Nas. Exspo Has. Penelit. dan Pengabd. Masy. 2019*, no. Ii, pp. 500–505, 2019.
- [11] N. Anggraini, T. E. Agustina, and F. Hadiah, "Pengaruh pH

- dalam Pengolahan Air Limbah Laboratorium Dengan Metode Adsorpsi untuk Penurunan Kadar Logam Berat Pb, Cu, dan Cd,” *J. Ilmu Lingkungan*, vol. 20, no. 2, pp. 345–355, 2022, doi: 10.14710/jil.20.2.345-355.
- [12] E. Puspita, M. I. A. Ali, and S. M. L. Rhusmana, “Pemanfaatan Pektin dari Daun Cincau Hijau (*Premna oblongifolia merr*) Sebagai Biosorben Logam Fe,” *Polban*, vol. 9, pp. 83–88, 2017, [Online]. Available: <https://jurnal.polban.ac.id/ojs-3.1.2/proceeding/article/view/1045/849>
- [13] J. Liu, T. W. Chen, and Y. L. Yang, “Removal of heavy metal ions and anionic dyes from aqueous solutions using amide-functionalized cellulose-based adsorbents,” *Carbohydr. Polym.*, vol. 230, no. June 2019, 2020, doi: 10.1016/j.carbpol.2019.115619.
- [14] M. S. Alfarisi, A. Oktasari, and D. Fitriyani, “Biji Kebiul (*Caesalpinia Bonduc* L. Roxb) sebagai Adsorben Logam Besi (Fe),” *Sainteks*, vol. 18, no. 2, p. 107, 2022, doi: 10.30595/sainteks.v18i2.12689.
- [15] I. Lestari, M. Mahraja, F. Farid, D. R. Gusti, and E. Permana, “Penyerapan Ion Pb(II) Menggunakan Adsorben Dari Limbah Padat Lumpur Aktif Pengolahan Air Minum,” *Chem. Prog.*, vol. 13, no. 2, 2020, doi: 10.35799/cp.13.2.2020.31391.
- [16] R. F. Azzahra and M. Taufik, “Bio-Adsorben Berbahan

Dasar Limbah Ampas Teh (*Camellia Sinensis*) Sebagai Agent Penyerap Logam Berat Fe Dan Pb Pada Air Sungai Bio-Adsorbent From Waste Tea Leaves (*Camellia Sinensis*) As Heavy Metal Fe and Pb Adsorption Agent in River Water,” *J. Kinet.*, vol. 11, no. 01, pp. 65–70, 2020, [Online]. Available: <https://jurnal.polsri.ac.id/index.php/kimia/index65>

- [17] G. Purwiandono and A. S. Haidar, “Studi Adsorpsi Logam Pb(II) Menggunakan Adsorben Kulit Rambut Teraktivasi HNO₃ dan NaOH,” *Indones. J. Chem. Res.*, vol. 7, no. 1, pp. 8–16, 2022, doi: 10.20885/ijcr.vol7.iss1.art2.
- [18] E. Taer, Apriwandi, R. Taslim, and Agustino, “The effect of physical activation temperature on physical and electrochemical properties of carbon electrode made from jengkol shell (*Pithecellobium jiringa*) for supercapacitor application,” *Mater. Today Proc.*, vol. 44, pp. 3341–3345, 2020, doi: 10.1016/j.matpr.2020.11.644.
- [19] N. Hidayah, R. Lubis, K. G. Wiryawan, and S. Suharti, “Phenotypic identification, nutrients content, bioactive compounds of two jengkol (*Archidendron jiringa*) varieties from Bengkulu, Indonesia and their potentials as ruminant feed,” *Biodiversitas*, vol. 20, no. 6, pp. 1671–1680, 2019, doi: 10.13057/biodiv/d200624.
- [20] B. Aritonang, E. Gultom, S. Sijabat, and Hestina, “Sintesis dan Karakterisasi Arang Aktif Dari Kulit Jengkol Sebagai

Adsorben Terhadap Kadar BOD, COD, TSS Pada Limbah Cair Industri Tahu,” *CHEDS J. Chem. Educ. Sci.*, vol. 6, no. 2, pp. 2611–2626, 2022.

- [21] M. Fildza, R. Rohmatullaili, and A. Oktasari, “Utilization of Jengkol Peel (*Pithecellobium jiringa*) as an Adsorbent of Iron Metal,” *Walisongo J. Chem.*, vol. 5, no. 2, pp. 130–135, 2022, doi: 10.21580/wjc.v5i2.11582.
- [22] Z. Chaidir, Q. Hasanah, and R. Zein, “Penyerapan Ion Logam Cr(III) dan Cr(VI) Dalam Larutan Menggunakan Kulit Buah Jengkol,” *J. Ris. Kim.*, vol. 8, no. 2, pp. 189–199, 2015.
- [23] G. A. Wardani and W. T. Wulandari, “Studi Kinetika dan Isoterm Adsorpsi Timbal (II) Pada Kulit Jengkol (*Pithecellobium jiringa*) Teraktivasi,” *Kovalen*, vol. 3, no. 3, p. 252, 2017, doi: 10.22487/j24775398.2017.v3.i3.8592.
- [24] S. Pandia and B. Warman, “Pemanfaatan Kulit Jengkol Sebagai Adsorben Dalam Penyerapan Logam Cd (II) Pada Limbah Cair Industri Pelapisan Logam,” *J. Tek. Kim. USU*, vol. 5, no. 4, pp. 57–63, 2017, doi: 10.32734/jtk.v5i4.1556.
- [25] T. Wu, G. Yang, J. Cao, Z. Xu, and X. Jiang, “Activation and adsorption mechanisms of methylene blue removal by porous biochar adsorbent derived from eggshell membrane,” *Chem. Eng. Res. Des.*, vol. 188, pp. 330–341, 2022, doi: 10.1016/j.cherd.2022.08.042.
- [26] B. Susilo, S. H. Sumarlan, and D. F. Nurirenia, “Pemurnian

Bioetanol Menggunakan Proses Distilasi dan Adsorpsi dengan Penambahan Asam Sulfat (H_2SO_4) Pada Aktivasi Zeolit Alam Sebagai Adsorben Purification Bioetanol Using A Process The Distillation and Adsorption By The Addition Of Sulphuric Acid (," *J. Keteknikan Pertan. Trop. dan Biosist.*, vol. 5, no. 1, pp. 19–26, 2017.

- [27] W. Wardalia, R. Rusdi, R. Hartono, and M. T. Adiwibowo, "Pengaruh Jenis Aktivasi Pada Adsorben Cangkang Kacang Tanah Terhadap Adsorpsi Metil Violet," *J. Integr. Proses*, vol. 10, no. 2, p. 115, 2021, doi: 10.36055/jip.v10i2.13050.
- [28] S. Prabhu, T. Daniel Thangadurai, T. Indumathi, and P. Kalugasalam, "Enhanced visible light induced dye degradation and antibacterial activities of ZnO/NiO nanocomposite synthesized using Clitoria ternatea flower extract," *Inorg. Chem. Commun.*, vol. 146, no. October, p. 110077, 2022, doi: 10.1016/j.inoche.2022.110077.
- [29] Narwati, H. Suryono, and Setiawan, "Model Peningkatan Kapasitas Adsorpsi Cangkang Telur Ayam Dengan Memanfaatkan Ekstrak Jeruk Limau (*Citrus amblycarpa*) Untuk Meminimasi Kadar Timbal (Pb) Kerang Darah (*Anadara granosa*) Melalui Alat "Stirer Chamber"," *Lap. AKHIR Penelit.*, 2019.
- [30] M. K. Seliem and M. Mobarak, "A novel multifunctional adsorbent of pomegranate peel extract and activated

- anthracite for Mn(VII) and Cr(VI) uptake from solutions: Experiments and theoretical treatment,” *J. Mol. Liq.*, vol. 311, p. 113169, 2020, doi: 10.1016/j.molliq.2020.113169.
- [31] S. Prabhu, T. Daniel Thangadurai, P. Vijai Bharathy, and P. Kalugasalam, “Synthesis and characterization of nickel oxide nanoparticles using *Clitoria ternatea* flower extract: Photocatalytic dye degradation under sunlight and antibacterial activity applications,” *Results Chem.*, vol. 4, no. November 2021, p. 100285, 2022, doi: 10.1016/j.rechem.2022.100285.
- [32] H. M. Ningrum, “Pengaruh Ketinggian Tempat Terhadap Ukuran Dan Warna Bunga, Kadar Total Flavonoid Dan Aktivitas Antioksidan Ekstrak Bunga Telang (*Clitoria ternatea* L.),” *skripsi*, no. 8.5.2017, pp. 2003–2005, 2022.
- [33] G. G. Yumni, S. Sumantri, I. Nuraini, and I. J. Nafis, “Profil Antioksidan Dan Kadar Flavonoid Total Fraksi Air Dan Etil Asetat Ekstrak Etanol Bunga Telang (*Clitoria ternatea* L.),” *Cendekia Eksakta*, vol. 7, no. 1, pp. 12–17, 2022, doi: 10.31942/ce.v7i1.6547.
- [34] E. Cahyaningsih, P. E. S. K. Yuda, and P. Santoso, “Skrining Fitokimia Dan Uji Aktivitas Antioksidan Ekstrak Etanol Bunga Telang (*Clitoria ternatea* L.) Dengan Metode Spektrofotometri UV-VIS,” *J. Ilm. Medicam.*, vol. 5, no. 1, pp. 51–57, 2019, doi: 10.36733/medicamento.v5i1.851.
- [35] Purwaniati, A. R. Arif, and A. Yuliantini, “Analysis Of

Total Anthocyanin Content In Telang Flowers Preparations (Clitoria ternatea) With pH Differential Method Using Visible Spectrophotometry,” *J. Farmagazine*, vol. 7, no. 1, p. 18, 2020.

- [36] S. Salacheep, P. Kasemsiri, U. Pongsa, M. Okhawilai, P. Chindaprasirt, and S. Hiziroglu, “Optimization of ultrasound-assisted extraction of anthocyanins and bioactive compounds from butterfly pea petals using Taguchi method and Grey relational analysis,” *J. Food Sci. Technol.*, vol. 57, no. 10, pp. 3720–3730, 2020, doi: 10.1007/s13197-020-04404-7.
- [37] A. A. Silva, A. M. F. Sousa, C. R. G. Furtado, and N. M. F. Carvalho, “Green magnesium oxide prepared by plant extracts: synthesis, properties and applications,” *Mater. Today Sustain.*, vol. 20, 2022, doi: 10.1016/j.mtsust.2022.100203.
- [38] M. Rahmayanti, A. Nurul Syakina, I. Fatimah, and T. Sulistyarningsih, “Green synthesis of magnetite nanoparticles using peel extract of jengkol (*Archidendron pauciflorum*) for methylene blue adsorption from aqueous media,” *Chem. Phys. Lett.*, vol. 803, no. January, p. 139834, 2022, doi: 10.1016/j.cplett.2022.139834.
- [39] R. A. Alfauzi, B. F. Ariyanto, K. P. Setyawan, M. Sihite, and N. Hidayah, “Potensi Kulit Jengkol sebagai Agen Penurun Kolesterol Daging Itik Magelang,” *J. Sain*

- Peternak. Indones.*, vol. 16, no. 1, pp. 98–107, 2021, doi: 10.31186/jspi.id.16.1.98-107.
- [40] F. I. P. Sari and R. O. Asriza, “Biosorben Kulit Jengkol (*Pithecellobium jiringa*) sebagai Penyerap Logam Pb pada Air Kolong Pasca Penambangan Timah,” *J. Sains Teknol. Lingkung.*, vol. 4, no. 2, pp. 83–89, 2018.
- [41] Nurdiani and Olivia, “Adsorben Dalam Penyerapan Ion Logam Timbal (Pb) di Air Limbah Simulasi,” vol. 43, no. 1, pp. 7–13, 2019.
- [42] A. Rahman, W. Febria Putri, and Y. Darnas, “Pemanfaatan Arang Aktif Kulit Jengkol (*Pithecellobium lobatum*) Sebagai Adsorben Dalam Menyisihkan Kadar COD dan TSS Pada Limbah Cair Tahu,” *Lingk. J. Environ. Eng.*, vol. 2, no. 1, pp. 29–47, 2021, doi: 10.22373/ljee.v2i1.1871.
- [43] F. Wulandari and E. Budi, “Pengaruh Konsentrasi Larutan NaOH Pada Karbon Aktif Tempurung Kelapa Untuk Adsorpsi Logam Cu^{2+} ,” *Spektra J. Fis. dan Apl.*, vol. 16, no. 2, pp. 60–64, 2015, [Online]. Available: <http://journal.unj.ac.id/unj/index.php/spektra/article/view/5829>
- [44] E. Supraptiah, aisyah suci Ningsih, Fatria, and U. Amalia, “Penyerapan Logam Pb dengan Menggunakan Karbon Aktif dari Cangkang Kemiri sebagai Adsorben.” 2014.
- [45] M. L. Bere, J. Sibarani, and M. Manurung, “Sintesis Nanopartikel Perak (NPAg) Menggunakan Ekstrak Air

Daun Kemangi (*Ocimum Sanctum* Linn.) Dan Aplikasinya dalam Fotodegradasi Zat Warna Metilen Biru,” *Cakra Kim. (Indonesian E-Journal Appl. Chem.,* vol. 7, pp. 155–164, 2019.

- [46] N. A. M. Ghuzali, M. A. A. C. M. Noor, F. A. Zakaria, T. S. Hamidon, and M. H. Husin, “Study on *Clitoria ternatea* extracts doped sol-gel coatings for the corrosion mitigation of mild steel,” *Appl. Surf. Sci. Adv.*, vol. 6, no. September, 2021, doi: 10.1016/j.apsadv.2021.100177.
- [47] I. Fatimah, I. Sahroni, O. Muraza, and R. A. Doong, “One-pot biosynthesis of SnO₂ quantum dots mediated by *Clitoria ternatea* flower extract for photocatalytic degradation of rhodamine B,” *J. Environ. Chem. Eng.*, vol. 8, no. 4, p. 103879, 2020, doi: 10.1016/j.jece.2020.103879.
- [48] P. Priya, K. Elumali, D. Shakila, K. Geetha, and A. Dinesh Karthik, “Facile approach to synthesize, compared to MgO & ZnO nanoparticles by using *Clitoria ternatea*/*Tecoma castanifolia* flower,” *Mater. Today Proc.*, vol. 29, pp. 1217–1222, 2020, doi: 10.1016/j.matpr.2020.05.479.
- [49] K. H. Vardhan, P. S. Kumar, and R. C. Panda, “A review on heavy metal pollution, toxicity and remedial measures: Current trends and future perspectives,” *J. Mol. Liq.*, vol. 290, p. 111197, 2019, doi: 10.1016/j.molliq.2019.111197.
- [50] C. Irawan, “Pengaruh Konsentrasi Adsorbat Terhadap Efektivitas Penurunan Logam Fe Dengan Menggunakan

- Fly Ash Sebagai Adsorben,” *Seminastika*, pp. 291–293, 2018.
- [51] F. Asip, R. Mardhiah, and Husna, “Uji Efektifitas Cangkang Telur dalam Mengadsorpsi Ion Fe dengan Proses Batch,” *J. Tek. Kim.*, vol. 15, no. 2, pp. 22–26, 2008.
- [52] T. Widayatno, T. Yuliawati, and A. A. Susilo, “Adsorpsi Logam Berat (Pb) dari Limbah Cair dengan Adsorben Arang Bambu Aktif,” *J. Teknol. Bahan Alam*, vol. 1, no. 1, pp. 17–23, 2017.
- [53] Y. He, A. M. Dietrich, Q. Jin, T. Lin, D. Yu, and H. Huang, “Cellulose adsorbent produced from the processing waste of brewer’s spent grain for efficient removal of Mn and Pb from contaminated water,” *Food Bioprod. Process.*, vol. 135, pp. 227–237, 2022, doi: 10.1016/j.fbp.2022.08.005.
- [54] Lampiran, P. Pemerintah, and R. Indonesia, “Peraturan Pemerintah Republik Indonesia Nomor 22 Tahun 2021,” no. 097089, 2021.
- [55] Z. Arifin, “Pentingnya Mineral Tembaga (Cu) dalam Tubuh Hewan dalam Hubungannya dengan Penyakit,” *J. War.*, vol. 17, no. 2, pp. 93–99, 2007.
- [56] S. Singh, S. Koley, B. Modak, M. Amarnath, H. Basu, and C. N. Patra, “Synthesis of amine functionalized SiO₂ microspheres loaded polymeric hydrogel and its application for simultaneous eviction of divalent metal ions (Pb²⁺, Cd²⁺, Cu²⁺ and Ni²⁺),” *Mater. Today Chem.*, vol. 33, no.

May, 2023, doi: 10.1016/j.mtchem.2023.101720.

- [57] A. A. Kiswandono, S. I. Prasetyo, R. Rinawati, A. Rahmawati, and A. Risgiyanto, "Analisis Logam Berat Cd, Fe, dan Pb Pada Air Sungai Way Umpu Kabupaten Way Kanan Secara Spektrofotometer Serapan Atom," *Anal. Anal. Environ. Chem.*, vol. 7, no. 1, p. 68, 2022, doi: 10.23960/aec.v7i1.2022.p68-79.
- [58] B. Kartoğlu, A. Bahçivan, S. Erarpat, A. Bayraktar, and S. Bakirdere, "Microwave assisted synthesis method for cobalt nanoleaves and its usage in sensitive determination of lead in blue butterfly tea extract and tap water samples by flame atomic absorption spectrophotometry," *J. Food Compos. Anal.*, vol. 121, no. April, pp. 1–7, 2023, doi: 10.1016/j.jfca.2023.105373.
- [59] D. Chukwu Onu *et al.*, "Isotherm, kinetics, thermodynamics, recyclability and mechanism of ultrasonic assisted adsorption of methylene blue and lead (II) ions using green synthesized nickel oxide nanoparticles," *Environ. Nanotechnology, Monit. Manag.*, vol. 20, no. December 2022, p. 100818, 2023, doi: 10.1016/j.enmm.2023.100818.
- [60] A. V. Baskar *et al.*, "Recovery, regeneration and sustainable management of spent adsorbents from wastewater treatment streams: A review," *Sci. Total Environ.*, vol. 822, 2022, doi: 10.1016/j.scitotenv.2022.153555.

- [61] N. Ahmad, F. Suryani Arsyad, I. Royani, P. Mega Syah Bahar Nur Siregar, T. Taher, and A. Lesbani, "High regeneration of ZnAl/NiAl-Magnetite humic acid for adsorption of Congo red from aqueous solution," *Inorg. Chem. Commun.*, vol. 150, no. February, p. 110517, 2023, doi: 10.1016/j.inoche.2023.110517.
- [62] W. Wang, M. Gao, M. Cao, J. Dan, and H. Yang, "Self-propagating synthesis of Zn-loaded biochar for tetracycline elimination," *Sci. Total Environ.*, vol. 759, no. xxxx, p. 143542, 2021, doi: 10.1016/j.scitotenv.2020.143542.
- [63] L. Yanyan, T. A. Kurniawan, A. B. Albadarin, and G. Walker, "Enhanced removal of acetaminophen from synthetic wastewater using multi-walled carbon nanotubes (MWCNTs) chemically modified with NaOH, HNO₃/H₂SO₄, ozone, and/or chitosan," *J. Mol. Liq.*, vol. 251, pp. 369–377, 2018, doi: 10.1016/j.molliq.2017.12.051.
- [64] S. Muráth, N. Dvorníková, and D. Moreno-Rodríguez, "Intercalation of atorvastatin and valsartan into Mg[*s*bn]Al layered double hydroxide host using a restacking procedure," *Appl. Clay Sci.*, vol. 231, no. May 2022, 2023, doi: 10.1016/j.clay.2022.106717.
- [65] N. L. Z. Faza, "Adsorpsi Logam Cd (II) Menggunakan Adsorben Arang Aktif dari Kulit Buah Matoa Teraktivasi Asam Nitrat," *Skripsi*, no. II, pp. 1–99, 2021.

- [66] N. Yuliasari, A. Wijaya, R. Mohadi, E. Elfita, and A. Lesbani, "Photocatalytic Degradation of Malachite Green by Layered Double Hydroxide Based Composites," *Bull. Chem. React. Eng. Catal.*, vol. 17, no. 2, pp. 240–249, 2022, doi: 10.9767/bcrec.17.2.13482.240-249.
- [67] S. Hastuti, I. T. Utomo, and T. Martini, "Pemanfaatan Abu Sekam Padi sebagai Sumber Silika untuk Pembuatan Adsorben Ion Logam Cd(II) melalui Teknik Imprinted Ionic," *ALCHEMY J. Penelit. Kim.*, vol. 17, no. 1, p. 113, 2021, doi: 10.20961/alchemy.17.1.44241.113-123.
- [68] N. Betriana, *Sintesis Selulosa Magnetit dari Kulit Jengkol dan Aplikasinya sebagai Adsorben Logam Pb*. 2023.
- [69] C. V. Lestari, *Adsorpsi Ion Logam Pb (II) Menggunakan Karbon Aktif Magnetik dari Kulit Jengkol*, no. ii. 2023.
- [70] M. Mahmiah, N. Sa'adah, H. N. Sunur, and N. Wijayanti, "Profil Metabolit Ekstrak Etanol Enhalus acoroides (L.F.) Royle, 1839 dari Nusa Tenggara Timur," *J. Mar. Res.*, vol. 12, no. 1, pp. 151–160, 2023, doi: 10.14710/jmr.v12i1.35076.
- [71] N. Ahmad, D. Savira, D. Erviana, and R. Mohadi, "A series of MgAl layer double hydroxide-based materials intercalated with Clitoria ternatea flower extract as photocatalysts in the ciprofloxacin degradation," *Chem. Phys. Impact*, vol. 8, no. March, p. 100587, 2024, doi: 10.1016/j.chphi.2024.100587.

- [72] Gala, *Adsorpsi Ion Logam Fe Menggunakan Adsorben Sabut Pinang Teraktivasi Ekstrak Daun Nanas (Ananas comosus L)*. 2023.
- [73] N. Kurniawati, *Karbon Aktif Sabut Pinang Teraktivasi Ekstrak Daun Nanas (Ananas comosus L) sebagai Adsorben Ion Logam Cu*. 2023.
- [74] X. Wang, J. Wang, L. Jiang, and Y. Jiang, "Adsorption of Pb^{2+} and Cu^{2+} in wastewater by lignosulfonate adsorbent prepared from corn straw," *Int. J. Biol. Macromol.*, vol. 247, no. June, p. 125820, 2023, doi: 10.1016/j.ijbiomac.2023.125820.
- [75] N. Vita Sari, E. Budi Susatyo, dan F. Widhi Mahatmanti Jurusan Kimia, and F. Matematika dan Ilmu Pengetahuan Alam, "Indonesian Journal of Chemical Science Pengaruh pH terhadap Adsorpsi Ion Cu^{2+} oleh Polifenol Kluwak (*Pangium edule R.*) dengan Pembentukan Kompleks," *J. Chem. Sci*, vol. 7, no. 3, 2018, [Online]. Available: <http://journal.unnes.ac.id/sju/index.php/ijcs>
- [76] N. Ahmad, F. Suryani Arsyad, I. Royani, and A. Lesbani, "Adsorption of methylene blue on magnetite humic acid: Kinetic, isotherm, thermodynamic, and regeneration studies," *Results Chem.*, vol. 4, no. November, p. 100629, 2022, doi: 10.1016/j.rechem.2022.100629.

