

DAFTAR PUSTAKA

- Ahile, U. J., Wuana, R. A., Itodo, A. U., Sha'Ato, R., and Dantas, R. F., 2020, A Review on The Use of Chelating Agents as An Alternative to Promote Photo-Fenton at Neutral pH: Current Trends, Knowledge Gap and Future Studies, *Sci. Total Environ.*, 710 (134872), 1-16.
- Alalm, M. G., Tawfik, A., and Ookawara, S., 2015, Degradation of Four Pharmaceuticals by Solar Photo-Fenton Process: Kinetics and Costs Estimation, *J. Environ. Chem. Eng.*, 3 (1), 46–51.
- Anastas, P. T., and Warner, J. C., 1998, *Green Chemistry: Theory and Practice*, New York: Oxford University Press.
- Arbabi, M., Hemati, S., and Amiri, M., 2015, Removal of Lead Ions from Industrial Wastewater: A Review of Removal Methods, *Int. J. Epidemiol.*, 2 (2), 105–109.
- Badawy, M. I., Ghaly, M. Y., and Gad-Allah, T. A., 2006, Advanced Oxidation Processes for The Removal of Organophosphorus Pesticides from Wastewater, *Desalination*, 194 (1-3), 166–175.
- Benitez, F. J., Real, F. J., Acero, J. L., Garcia, C., and Llanos, E. M., 2007, Kinetics of *Phenylurea herbicides* Oxidation by Fenton and Photo-Fenton Processes, *J. Chem. Technol. Biotechnol.*, 82 (1), 65–73.
- Blainski, A., Lopes, G. C., and De Mello, J. C. P., 2013, Application and Analysis of the Folin-Ciocalteu Method for the Determination of the Total Phenolic Content from *Limonium brasiliense L.*, *Molecules*, 18 (6), 6852–6865.
- Bolobajev, J., Trapido, M., and Goi, A., 2016, Interaction of Tannic Acid with Ferric Iron to Assist 2,4,6-trichlorophenol Catalytic Decomposition and Reuse of Ferric Sludge As a Source of Iron Catalyst in Fenton-based Treatment, *App. Catal. B.*, 187, 75-82.
- Bors, W., Foo, L. Y., Hertkorn, N., Michel, C., and Stettmaier, K., 2001, Chemical Studies of Proanthocyanidins and Hydrolyzable Tannins, *ARS*, 3 (6), 995-1008.
- Cahyani, R. K., Susilowati, A., Lusi, S., and Sari, A., 2019, Tannins Inhibition of Tea Leaves (*Camellia sinensis*) against *Escherichia coli* Diarrhea-Causing Bacteria, *Bioteknologi*, 16 (2), 48-52.
- Çakar, S., and Özacar, M., 2016, Fe-tannic Acid Complex Dye as Photo Sensitizer for Different Morphological ZnO based DSSCs, *SAA*, 163, 79–88.

- Çakar, S., and Özacar, M., 2019, The pH Dependent Tannic Acid and Fe-tannic Acid Complex Dye for Dye Sensitized Solar Cell Applications, *J. Photochem. Photobiol., A*, 371, 282–291.
- Castro-Alves, V. C., and Cordenunsi, B. R., 2015, Total Soluble Phenolic Compounds Quantification is Not As Simple As It Seems, *Food Anal. Methods*, 8, 873–884.
- Chen, H., Zhan, J., Man, L., Deng, H., Zhou, H., Hao, L., and Zhou, X., 2023, High Foliar Retention Tannic Acid/Fe³⁺ Functionalized Ti-pillared Montmorillonite Pesticide Formulation with pH-responsibility and High UV Stability, *Appl. Surf. Sci.*, 620 (156838), 1-12.
- Clarizia, L., Russo, D., Somma, D., Marotta, R., and Andreozzi, R., 2017, Homogeneous Photo-Fenton Processes at Near Neutral pH: A Review. *Appl. Catal. B.*, 209, 358–371.
- Clifford, M. N., and Scalbert, A., 2000, Review Ellagitannins-Nature, Occurrence and Dietary Burden, *J. Sci. Food. Agric.*, 80, 1118-1125.
- Crispim, C. P., Nogueira, R. F. P., Ometto, J. P., and Campos, M. L. A. M., 2018, Photo-Fenton Approach for the Determination of Organic Nitrogen in Rainwater, *Atmos. Environ.*, 191, 525–531.
- Cruz, B. H., Diaz-Cruz J. M., Arino C., and Esteban M., 2000, Heavy Metal Binding by Tannic Acid: A Voltammetric Study, *Electroanalysis*, 12, 1130-1137.
- Das, A. K., Islam, M. N., Faruk, M. O., Ashaduzzaman, M., and Dungani, R., 2020, Review on Tannins: Extraction Processes, Applications and Possibilities, *S. Afr. J. Bot.*, 135, 58–70.
- De Luca, A., Dantas, R. F., and Esplugas, S., 2014, Assessment of Iron Chelates Efficiency for Photo-Fenton at Neutral pH, *Water Res.*, 61, 232–242.
- Domínguez, J. R., González, T., Palo, P., and Cuerda-Correa, E. M., 2012, Fenton + Fenton-like Integrated Process for Carbamazepine Degradation: Optimizing the System, *Ind. Eng. Chem. Res.*, 51, 2531–2538.
- Everette, J. D., Bryant, Q. M., Green, A. M., Abbey, Y. A., Wangila, G. W., and Walker, R. B., 2010, Thorough Study of Reactivity of Various Compound Classes toward The Folin-Ciocalteu Reagent, *J. Agric. Food Chem.*, 58, 8139–8144.
- Fajrina, A., Jubahar, J., dan Sabirin, S., 2016, Penetapan Kadar Tanin pada Teh Celup yang Beredar Dipasaran secara Spektrofotometri UV-Vis, *J. Farm. Higea*, 8 (2), 133-142.

- Fu, Z., and Chen, R., 2019, Study of Complexes of Tannic Acid with Fe(III) and Fe(II), *J. Anal. Methods Chem.*, 2019 (3894571), 1-6.
- Gabet, A., Guy, C., Fazli, A., Métivier, H., de Brauer, C., Brigante, M., and Mailhot, G., 2023, The Ability of Recycled Magnetite Nanoparticles to Degrade Carbamazepine in Water through Photo-Fenton Oxidation at Neutral pH, *Sep. Purif. Technol.*, 317 (123877), 1-8.
- Guo, Q., Li, S., Du, G., Chen, H., Yan, X., Chang, S., Yue, T., and Yuan, Y., 2022, Formulation and Characterization of Microcapsules Encapsulating Carvacrol using Complex Coacervation Crosslinked with Tannic Acid, *LWT – Food Sci. Technol.*, 165 (113683), 1-10.
- Haryati, M., Purnomo, T., Kuntjoro, S., 2012, Kemampuan Tanaman Genjer (*Limncharis flava (L.) Buch.*) Menyerap Logam Berat Timbal (Pb) Limbah Cair Kertas pada Biomassa dan Waktu Pemaparan Yang Berbeda, *LenteraBio*, 1, 131-138.
- Hider, R. C., Liu, Z. D., dan Khodr, H. H., 2001, Metal Chelation of Polyphenols, Antioxidant Action, *Meth. Enzymol.*, 335, 190–203.
- Hu, J., Webster, D., Cao, J., and Shao, A., 2018, The Safety of Green Tea and Green Tea Extract Consumption in Adults – Results of A Systematic Review, *Regul. Toxicol. Pharmacol.*, 95, 412–433.
- Huang, Y. H., Huang, Y. J., Tsai, H. C., and Chen, H. T., 2010, Degradation of Phenol using Low Concentration of Ferric Ions by The Photo-Fenton Process, *J. Taiwan Inst. Chem. Eng.*, 41, 699–704.
- Jaffe, E. K., Martins, J., Li, J., Kervinen, J., and Dunbrack, R. L., 2001, The Molecular Mechanism of Lead Inhibition of Human Porphobilinogen Synthase, *J. Biol. Chem.*, 276, 1531–1537.
- Jing, L., Ding, Q., Li, X., Lou, J., Liu, Z., Jiang, Y., Han, W., and Cheng, Z., 2023, Bifunctional Collagen Fiber/Carbon Quantum Dot Fluorescent Adsorbent for Efficient Adsorption and Detection of Pb²⁺, *Sci. Total Environ.*, 871, 1-8.
- Khanbabaee, K., and van Ree, T., 2001, Tannins: Classification and Definition. *Nat. Prod. Rep.*, 18, 641–649.
- Leonida, M. D., Benzecry, A., Lozanovska, B., Mahmoud, Z., Reid, A., and Belbekhouche, S., 2023, Impact of Tannic Acid on Nisin Encapsulation in Chitosan Particles, *Int. J. Biol. Macromol.*, 233, 1-11.
- Li, Y., Lin, R., Lv, F., Zhao, X., Yong, T., and Zuo, X., 2022, Tannic Acid-Fe Complex Derivative-Modified Electrode with pH Regulating Function for Environmental Remediation by Electro-Fenton Process, *Environ. Res.*, 204, 1-10.

- Li, Y., Lu, Y., and Zhu, X., 2006, Photo-Fenton Discoloration of The Azo Dye X-3B Over Pillared Bentonites Containing Iron, *J. Hazard. Mater.*, 132, 196–201.
- López-Vinent, N., Cruz-Alcalde, A., Lai, C., Giménez, J., Esplugas, S., and Sans, C., 2022, Role of Sunlight and Oxygen on The Performance of Photo-Fenton Process at Near Neutral pH using Organic Fertilizers as Iron Chelates, *Sci. Total Environ.*, 803, 1-10.
- Luo, J., Panzarasa, G., Osypova, A., Sorin, F., Spano, F., Rossi, R., M., Sadeghpour, A., Boesel, L. F., 2019, Polyphenols as Morphogenetic Agents for the Controlled Synthesis of Mesoporous Silica Nanoparticles, *Chem. Mater.*, 31 (9), 3192-3200.
- Lutterbeck, C. A., Machado, Ê. L., and Kümmerer, K., 2015, Photodegradation of The Antineoplastic Cyclophosphamide: A Comparative Study of The Efficiencies of UV/H₂O₂, UV/Fe²⁺/H₂O₂ and UV/TiO₂ Processes, *Chemosphere*, 120, 538–546.
- Mathivanan, K., Uthaya Chandirika, J., Srinivasan, R., Emmanuel Charles, P., Rajaram, R., and Zhang, R., 2023, Exopolymeric Substances Production by *Bacillus cereus* KMS3-1 Enhanced Its Biosorption Efficiency in Removing Cd²⁺ and Pb²⁺ in Single and Binary Metal Mixtures, *Environ. Res.*, 228, 1-10.
- Menteri Lingkungan Hidup, 2010, *Peraturan Menteri Lingkungan Hidup Nomor 3 Tahun 2010 tentang Baku Mutu Air Limbah Kawasan Industri*, Jakarta: Kementrian Lingkungan Hidup.
- Munteanu, I. G., and Apetrei, C., 2021, Analytical Methods used in Determining Antioxidant Activity: A Review, *Int. J. Mol. Sci.*, 22 (3380), 1-30.
- Nateras-Ramírez, O., Martínez-Macias, M. R., Sánchez-Machado, D. I., López-Cervantes, J., and Aguilar-Ruiz, R. J., 2022, An Overview of Microalgae for Cd²⁺ and Pb²⁺ Biosorption from Wastewater, *Bioresour. Technol.*, 17, 1-13.
- O'Dowd, K., and Pillai, S. C., 2020, Photo-Fenton Disinfection at Near Neutral pH: Process, Parameter Optimization and Recent Advances, *J. Environ. Chem. Eng.*, 8 (5), 1-27.
- Perera, W. N., Hefter, G., and Sipos, P. M., 2001, An Investigation of The Lead(II)-hydroxide System, *Inorg. Chem.*, 40, 3974–3978.
- Qin, Z., Huang, Y., Xiao, S., Zhang, H., Lu, Y., and Xu, K., 2022, Preparation and Characterization of High Mechanical Strength Chitosan/Oxidized Tannic Acid Composite Film with Schiff Base and Hydrogen Bond Crosslinking, *Int. J. Mol. Sci.*, 23 (9286), 1-19.
- Rădulescu, A., and Lundgren, S., 2019, A Pharmacokinetic Model of Lead Absorption and Calcium Competitive Dynamics, *Sci. Rep.*, 9 (14225), 1-27.

- Rastogi, S., Tiwari, S., Ratna, S., and Kumar, R., 2021, Utilization of Agro-industrial Waste for Biosurfactant Production under Submerged Fermentation and Its Synergistic Application in Biosorption of Pb^{2+} , *Bioresour. Technol.*, 15 (100706), 1-10.
- Sang, S., 2016, Tea: Chemistry and Processing, *Encycl. Food and Health*, 268–272, North Carolina: Elsevier Ltd.
- Santos, D., Hagemann Cauduro, V., Wohlmann, W., Bizzi, C. A., Mello, P. A., and Flores, E. M. M., 2021, Ultrasound-assisted Conversion of Tannic Acid to Gallic Acid as A Strategy to Obtain Value-added Products, *Ultrason. Sonochem.*, 72 (105442), 1-5.
- Schofield, P., Mbugua, D. M., and Pell, A. N., 2001, Analysis of Condensed Tannins: A Review, *Anim. Feed. Sci. Technol.*, 91, 21–40.
- Sivaraman, S. K., Elango, I., Kumar, S., and Santhanam, V., 2009, A Green Protocol for Room Temperature Synthesis of Silver Nanoparticles in Seconds, *Curr. Sci.*, 97, 1055-1059
- Sulastri, S., Nuryono, I., Kartini, E., dan Sri, K., 2014, Kinetika dan Keseimbangan Adsorpsi Ion Kromium(III) dalam Larutan pada Senyawa Silika dan Modifikasi Silika Hasil Sintesis dari Abu Sekam Padi, *J. P. Saintek*, 19, 33-44.
- Tomak, E. D., and Gonultas, O., 2018, The Wood Preservative Potentials of Valonia, Chestnut, Tara and Sulphited Oak Tannins, *J. Wood Chem. Technol.*, 38 (3), 183–197.
- Umar, M., Aziz, H. A., and Yusoff, M. S., 2010, Trends in The Use of Fenton, Electro-Fenton and Photo-Fenton for The Treatment of Landfill Leachate, *J. Waste Manag.*, 30, 2113–2121.
- Vijayakumar, S., Sasikala, M., and Ramesh, R., 2013, Lead Poisoning-an Overview, *J. Pharmacol. Toxicol.*, 2, 70–82.
- Villegas-Guzman, P., Giannakis, S., Torres-Palma, R. A., and Pulgarin, C., 2017, Remarkable Enhancement of Bacterial Inactivation in Wastewater through Promotion of Solar Photo-Fenton at Near-neutral pH by Natural Organic Acids, *Appl. Catal. B*, 205, 219–227.
- Vorontsov, A. V., 2019, Advancing Fenton and photo-Fenton Water Treatment through The Catalyst Design, *J. Hazard. Mater.*, 103–112.
- Vu, H. H. T., Gu, S., Thriveni, T., Khan, M. D., Tuan, L. Q., and Ahn, J. W., 2019, Sustainable Treatment for Sulfate and Lead Removal from Battery Wastewater, *Sustainability*, 11 (3497), 1-8.

- Wahyono, T., Astuti, D. A., Komang Gede Wiryawan, I., Sugoro, I., and Jayanegara, A., 2019, Fourier Transform Mid-Infrared (FTIR) Spectroscopy to Identify Tannin Compounds in the Panicle of Sorghum Mutant Lines, *IOP Conf. Ser.: Mater.*, 546 (4), 1-7.
- Wahyuni, E. T., Nurhikmatillah, A., Kurniasari, H., and Siswanta, D., 2021, Detoxification of As(III) in Aqueous Media by using Photo-Fenton Method, *Glob. Nest J.*, 23, 550–555.
- Wahyuni, E. T., Siswanta, D., Kunarti, E. S., Supraba, D., and Budiraharjo, S., 2019, Removal of Pb(II) Ions in The Aqueous Solution by Photo-Fenton Method, *Glob. Nest J.*, 21, 180–186.
- Wang, H., Chen, Y., Dorsel, P. K. P., and Wu, C., 2023, Efficient Visual Adsorption of Pb²⁺ by Nanocellulose/Sodium Alginate Microspheres with Fluorescence Sensitivity, *Int. J. Biol. Macromol.*, 228, 13–22.
- Wang, X., Wang, J., Jiang, L., and Jiang, Y., 2023, Adsorption of Pb²⁺ and Cu²⁺ in Wastewater by Lignosulfonate Adsorbent Prepared from Corn Straw, *Int. J. Biol. Macromol.*, 247 (125820), 1-10.
- Wang, X., and Zhang, L., 2018, Kinetic Study of Hydroxyl Radical Formation in A Continuous Hydroxyl Generation System, *RSC Adv.*, 8 (71), 40632–40638.
- Wu, Y., Passananti, M., Brigante, M., Dong, W., and Mailhot, G., 2014, Fe(III)–EDDS Complex in Fenton and Photo-Fenton Processes: from The Radical Formation to The Degradation of A Target Compound, *Environ. Sci. Pollut. Res.*, 12154–12162.
- Xie, H., Shen, L., Xu, Y., Hong, H., Yang, L., Li, R., and Lin, H., 2022, Tannic Acid (TA)-based Coating Modified Membrane Enhanced by Successive Inkjet Printing of Fe³⁺ and Sodium Periodate (SP) for Efficient Oil-water Separation, *J. Membr. Sci.*, 660 (120873), 1-10.
- Xu, L., Bai, T., Yi, X., Zhao, K., Shi, W., Dai, F., Wei, J., Wang, J., and Shi, C., 2023, Polypropylene Fiber Grafted Calcium Alginate with Mesoporous Silica for Adsorption of Bisphenol A and Pb²⁺, *Int. J. Biol. Macromol.*, 238 (124131), 1-10.
- Yıldırım, F., Orhan, Z., Taşkın, M., Incekara, U., Biber, M., and Aydoğan, Ş., 2022, Photo-sensor Characteristics of Tannic Acid (C₇₆H₅₂O₄₆)/n-Si Hybrid Biophotodiode for Visible and UV Lights Detection, *Opt. Laser Technol.*, 153 (108194), 1-11.
- Yu, Y. L., Thijs, L., Yu, C. G., Yang, W. Y., Melgarejo, J. D., Wei, D. M., Wei, F. F., Nawrot, T. S., Verhamme, P., Roels, H. A., Staessen, J. A., and Zhang, Z. Y., 2021, Two-Year Responses of Heart Rate and Heart Rate Variability to First Occupational Lead Exposure, *Hypertension*, 77, 1775–1786.

Zapata, A., Velegraki, T., Sánchez-Pérez, J. A., Mantzavinos, D., Maldonado, M. I., and Malato, S., 2009, Solar photo-Fenton Treatment of Pesticides in Water: Effect of Iron Concentration on Degradation and Assessment of Ecotoxicity and Biodegradability, *Appl. Catal. B.*, 88, 448–454.

Zheng, Y., Zhang, C., Wang, L., Long, X., Zhang, J., Zuo, Y., and Jiao, F., 2021, Tannic Acid-based Complex Coating Modified Membranes with photo-Fenton Self-cleaning Property for Sustainable Oil-in-water Emulsion Separation, *Sep. Purif.*, 272 (118893), 1-10.