DAFTAR PUSTAKA

Aday, B., Yildiz, Y., Ulus, R., Eris, S., Sen, F., and Kaya, M., 2016, One-pot, Efficient And Green Synthesis of Acridinedione Derivatives using Highly Monodisperse Platinum Nanoparticles Supported with Reduced Graphene Oxide, *New J. Chem.*, 40, 748–754.

Alabugin, I. V., Kuhn, L., Krivoshchapov, N. V., Mehaffy, P., and Medvedev, M.G., 2021, Anomeric Effect, Hyperconjugation and Electrostatics: Lessons From Complexity in a Classic Stereoelectronic Phenomenon, *Chem. Soc. Rev.*, 50, 10212–10252.

Alam, M.M., Mubarak, A.T., Assiri, M.A., Ahmed, M., and Fouda, A.M., 2019, A Facile And Efficient Synthesis of 1,8-dioxodecahydroacridines Derivatives Catalyzed by Cobalt-Alanine Metal Complex under Aqueous Ethanol Media, *BMC Chem.*, 13, 1–10.

Amaniampong, P.N. and Jérôme, F., 2020, Catalysis under Ultrasonic Irradiation: a Sound Synergy, *Curr. Opin. Green Sustain. Chem.*, 22, 7–12.

Aziz, H., Putri, H., Kimia, J., and Andalas, U., 2022, Modifikasi Struktur Zat Warna Berbasis Trifenilamin untuk Meningkatkan Kinerja *Dye-Sensitized* Solar Cells (Dsscs): Metode Komputasi, *J. Res. Educ. Chem.*, 4, 34–49.

Bamoniri, A., Mirjalili, B.B.F., and Fouladgar, S., 2016, Sonochemically Synthesis of 1,4-dihydropyridine Derivatives using Nano-Silica Supported Tin Tetrachloride as A Reusable Solid Acid Catalyst, *J. Taiwan Inst. Chem. Eng.*, 63, 396–403.

Banerjee, B., 2017, Recent Developments on Ultrasound Assisted Catalyst-Free Organic Synthesis, *Ultrason. Sonochem.*, 35, 1–14.

Bansode, S.R. and Rathod, V.K., 2017, Ultrasonics Sonochemistry An Investigation of Lipase Catalysed Sonochemical Synthesis : A review, *Ultrason. - Sonochemistry*, 38, 503–529.

Brinkerhoff, R.C., Santa-Helena, E., Do Amaral, P.C., Cabrera, D.D.C., Ongaratto, R.F., De Oliveira, P.M., Da Ros Montes D'Oca, C., Neves Gonçalves, C.A., Maia Nery, L.E., and Montes D'Oca, M.G., 2019, Evaluation of the Antioxidant Activities of Fatty Polyhydroquinolines Synthesized by Hantzsch Multicomponent Reactions, *RSC Adv.*, 9, 24688–24698.

Chate, A. V, Sukale, S.B., Ugale, R.S., and Gill, C.H., 2016, Baker's yeast: An Efficient, Green And Reusable Biocatalyst for the One-Pot Synthesis of Biologically Important *n*-Substituted Decahydroacridine-1,8-dione Derivatives, *Synth. Commun.*, 47-58.

Cheng, S., Shang, N., Feng, C., Gao, S., Wang, C., and Wang, Z., 2017, Efficient Multicomponent Synthesis of Propargylamines Catalyzed by Copper Nanoparticles Supported on Metal-Organic Framework Derived Nanoporous Carbon, *Catal. Commun.*, 89, 91–95.

Devi, M., Singh, R., Sindhu, J., Kumar, A., Lal, S., Kumar, R., Hussain, K., Sachdeva, M., Singh, D., and Kumar, P., 2022, Sonochemical Protocols for Heterocyclic Synthesis: A Representative Review, Springer International Publishing.

Dheyab, M.A., Aziz, A.A., Jameel, M.S., Khaniabadi, P.M., and Mehrdel, B., 2020, Mechanisms of Effective Gold Shell on Fe_3O_4 Core Nanoparticles Formation using Sonochemistry Method, *Ultrason. Sonochem.*, 64, 104865.

Domling, A., Wang, W., and Wang, K., 2012, Chemistry and Biology of Multicomponent Reactions.

Donelson, J.L., Gibbs, R.A., and De, S.K., 2006, An Efficient One-Pot Synthesis of Polyhydroquinoline Derivatives through the Hantzsch Four Component Condensation, *J. Mol. Catal. A Chem.*, 256, 309–311.

Ekowati, J., Pratama, R.P., Nofianti, K.A., and Diyah, N.W., 2019, The Temperature Effect on Ultrasonic-assisted of Synthesis Methyl Ferulate and Its Antiplatelet Assay, *Alchemy J. Penelitian Kimia*., 272-286.

Gawande, M., Goswami, A., Felpin, F.., Asefa, T., Huang, X., Silva, R., Zou, X., Zboril, R., and Varma, Rajender, S., 2016, Cu and Cu-Based Nanoparticles: Synthesis and Applications in Catalysis, *Chem. Rev.*, 116, 3722–3811.

Gawande, M.B., Branco, P.S., and Varma, R.S., 2013, Nano-magnetite (Fe_3O_4) as a Support for Recyclable Catalysts in the Development of Sustainable Methodologies, *Chem. Soc. Rev.*, 42, 3371–3393.

Gensicka-Kowalewska, M., Cholewiński, G., and Dzierzbicka, K., 2017, Recent Developments in the Synthesis and Biological Activity of Acridine/Acridone Analogues, *RSC Adv.*, 7, 15776–15804.

Ghafuri, H., Moradi, S., Ghanbari, N., Dogari, H., and Ghafori, M., 2022, Efficient and Green Synthesis of Acridinedione Derivatives Using Highly Fe_3O_4 @Polyaniline-SO_3H as Efficient Heterogeneous Catalyst, 23-32.

Hardyanputrindra, G., Ekowati, J., and Rudyanto, M., 2015, Journal Unair, *Berk. Ilm. Kim. Farm.*, 4, 5–10.

Huang, X., Xu, C., Ma, J., and Chen, F., 2018, Ionothermal Synthesis of Cu-doped Fe_3O_4 Magnetic Nanoparticles with Enhanced Peroxidase-Like Activity for Organic Wastewater Treatment, *Adv. Powder Technol.*, 29, 796–803.

Jadhvar, S.C., Kasraliker, H.M., Goswami, S. V., Chakrawar, A. V., and Bhusare, S.R., 2017, One-pot Synthesis and Evaluation of Anticancer Activity of Polyhydroquinoline Derivatives Catalyzed by [Msim]Cl, *Res. Chem. Intermed.*, 43, 7211–7221.

Kakuchi, R., 2014, Multicomponent Reactions in Polymer Synthesis, *Angew. Chemie - Int. Ed.*, 53, 46–48.

KAUR, B. and KUMAR, H., 2013, Methyltrioctylammonium Chloride Catalysed Sonochemical Synthesis of Acridine Diones, *J. Chem. Sci.*, 125, 989–992.

Liang, X., He, Z., Zhong, Y., Tan, W., He, H., Yuan, P., Zhu, J., and Zhang, J., 2013, The Effect of Transition Metal Substitution on the Catalytic Activity of Magnetite in Heterogeneous Fenton Reaction: in Interfacial View, *Colloids Surfaces A Physicochem. Eng. Asp.*, 435, 28–35.

Lukosi, M., Zhu, H., and Dai, S., 2016, Recent Advances in Gold-Metal Oxide Core-Shell Nanoparticles: Synthesis, Characterization, and Their Application for Heterogeneous Catalysis, *Front. Chem. Sci. Eng.*, 10, 39–56.

Machado, I. V., dos Santos, J.R.N., Januario, M.A.P., and Corrêa, A.G., 2021, Greener Organic Synthetic Methods: Sonochemistry and Heterogeneous Catalysis Promoted Multicomponent Reactions, *Ultrason. Sonochem.*, 78-97.

Magyar, Á. and Hell, Z., 2019, An Efficient One-Pot Four-Component Synthesis of 9-Aryl-Hexahydroacridine-1,8-Dione Derivatives in the Presence of a Molecular Sieves Supported Iron Catalyst, *Catal. Letters*, 149, 2528–2534.

Mahendra, I., 2022, Preparasi Nanopartikel Fe_3O_4 Termodifikasi Cu Sebagai Katalis dalam Sintesis Acridinedione melalui Reaksi Multikomponen, *Skripsi*, 9–10.

Mallu, L., Thirumalai, D., and Asharani, I.V., 2017, One-pot Cascade Synthesis And in Vitro Evaluation of Anti-Inflammatory and Antidiabetic Activities of S-Methylphenyl Substituted Acridine-1,8-diones, *Chem. Biol. Drug Des.*, 90, 520–526.

Marjani, P., 2017, Microwave-assisted Synthesis of Three Component Reaction,36, 1–6.

Masudi, A, Harimisa, G., Ghafar, N., and Jusoh, N, W, C., 2020, Magnetite-Based Catalysts for Wastewater Treatment, *Environ. Sci. Pollut. Res.*, 27, 4664–4682.

Masudi, A., Jusoh, N.W.C., Jusoh, R., Jaafar, N.F., Jalil, A.A., Firdausi, A., and Hartanto, D., 2020, Equidistant Crystal Distortion Arrangement of Copper Doped Magnetite for Paracetamol Degradation and Optimization with Response Surface Methodology (RSM), *Mater. Chem. Phys.*, 250-281

Mousavi, S.R., Rashidi Nodeh, H., and Foroumadi, A., 2021, Magnetically Recoverable Graphene-Based Nanoparticles for the One-Pot Synthesis of Acridine Derivatives under Solvent-Free Conditions, *Polycycl. Aromat. Compd.*, 41, 746–760.

Mukhina, O.A., Cronk, W.C., Kumar, N.N.B., Sekhar, M.C., Samanta, A., and Kutateladze, A.G., 2014, Intramolecular Cycloadditions of Photogenerated Azaxylylenes: an Experimental and Theoretical Study, *J. Phys. Chem. A*, 118, 10487–10496.

Munoz, M., Pedro, Z.M. De, Casas, J.A., and Rodriguez, J.J., 2015, Applied Catalysis B : Environmental Preparation of Magnetite-Based Catalysts and Their Application in Heterogeneous Fenton Oxidation – A review, *"Applied Catal. B, Environ.*, 176–177, 249–265.

Niculescu, A.G., Chircov, C., and Grumezescu, A.M., 2022, Magnetite Nanoparticles: Synthesis Methods – A Comparative Review, *Methods*, 199, 16–27.

Patil, M., Karhale, S., Kudale, A., Kumbhar, A., More, S., and Helavi, V., 2019, Green Protocol for the Synthesis of 1,8-dioxo-decahydroacridines by Hantzsch Condensation using Citric Acid as Organocatalyst, *Curr. Sci.*, 116, 936–942.

Poerwono, H. and Budiati, T., 2022, Pengaruh Gugus Metoksi Posisi Orto dan Para Pada Benzaldehida terhadap Sintesis Turunan Khalkon dengan Metode Kondensasi Aldol, *Gesetz Betreff. die Abänderung der Gewerbeordnung. (Neues Handw.*, 2, 76–94.

Qi, K., Zhuang, C., Zhang, M., Gholami, P., and Khataee, A., 2022, Sonochemical Synthesis of Photocatalysts and Their Applications, *J. Mater. Sci. Technol.*, 123, 243–256.

Quellette, R.. and Rawn, J.., 2015, Aromatic Compounds in Principles of Organic Chemistry, Elsevier Inc., USA.

Ramesh, K.B. and Pasha, M.A., 2014, Bioorganic & Medicinal Chemistry Letters Study on One-Pot Four-Component Synthesis Of 9-aryl-hexahydro-acridine-1,8-Diones Using SiO_2-I as a New Heterogeneous Catalyst and Their Anticancer Activity, *Bioorg. Med. Chem. Lett.*, 24, 3907–3913.

Sahiba, N., Sethiya, A., Soni, J., and Agarwal, S., 2021, Acridine-1,8-diones: Synthesis and Biological Applications, *ChemistrySelect*, 6, 2210–2251.

Sahiba, N., Sethiya, A., Soni, J., Teli, P., Garg, A., and Agarwal, S., 2022, A Facile Biodegradable Chitosan-SO_3H Catalyzed Acridine-1,8-dione Synthesis with Molecular Docking, Molecular Dynamics Simulation and Density Functional Theory Against Human Topoisomerase II Beta and Staphylococcus Aureus Tyrosyl-Trna Synthetase, *J. Mol. Struct.*, 1268, 133676.

Santiago, Celine B., Milo, A., and Sigman, M.S., 2016, Developing a Modern Approach to Account for Steric Effects in Hammett-Type Correlations, *J. Am. Chem. Soc.*, 138, 13424–13430.

Santiago, C. B, Milo, A., and Sigman, M.S., 2016, Developing a Modern Approach to Account for Steric Effects in Hammett-Type Correlations, *J. Am. Chem. Soc*, 138, 13424–13430.

Sardjono, D.R.E., 2020, Pengantar Reaksi Senyawa Organik,. Banten.

Shinde, G. and Thakur, J., 2023, Core-shell Structured Fe_3O_4@MgO: Magnetically Recyclable Nanocatalyst for One-Pot Synthesis of Polyhydroquinoline Derivatives under Solvent-Free Conditions, *J. Chem. Sci.*, 135, 1-14.

Taghavi, R. and Rostamnia, S., 2022, Four-Component Synthesis of Polyhydroquinolines via Unsymmetrical Hantzsch Reaction Employing Cu-IRMOF-3 as a Robust Heterogeneous Catalyst, *Chem. Methodol.*, 6, 639–648.

Torabi, M., Fekri, L.Z., and Nikpassand, M., 2022, Synthesis, Characterization and Application of Fe_3O_4@Silicapropyl@Vaniline-Covalented Isoniazid-Copper(I) Nanocomposite as a New, Mild, Effective and Magnetically Recoverable Lewis Acid Catalyst for the Synthesis of Acridines and Novel Azoacridines, *J. Mol. Struct.*, 1250-1292.

Wang, B.W., Li, L., Liu, H. Di, and Chen, D.S., 2022, Efficient One-Pot Synthesis of Spiro[Indoline-3,11'-Pyrazolo[3,4-a]Acridine]- 2,10'(1'H)-dione Derivatives Catalyzed by *L*-Proline, *Polycycl. Aromat. Compd.*, 42, 3291–3301.

Wang, T., Yang, W., Song, T., Li, C., Zhang, L., Wang, H., and Chai, L., 2015, Cu doped Fe_3O_4 Magnetic Adsorbent for Arsenic: Synthesis, Property, and Sorption Application, *RSC Adv.*, 5, 50011–50018.

Yaghoubi, A., Dekamin, M.G., and Karimi, B., 2017, Propylsulfonic Acid-Anchored Isocyanurate-Based Periodic Mesoporous Organosilica (PMO-ICS-$PrSO_3H$): A Highly Efficient and Recoverable Nanoporous Catalyst for the One-Pot Synthesis of Substituted Polyhydroquinolines, *Catal. Letters*, 147, 2656–2663.

Yang, J., Jiang, C., Yang, J., Qian, C., and FAng, D., 2013, A Clean Procedure for the Synthesis of 1,4-dihydropyridines via Hantzsch Reaction in Water, *Green Chem. Lett. Rev.*, 6, 262–267.

Yazdani, H., Hooshmand, S.E., and Stenzel, M.H., 2022, Fusion of Cellulose and Multicomponent Reactions: Benign by Design, *ACS Sustain. Chem. Eng.*, 10, 4359–4373.

Zeynizadeh, B. and Gilanizadeh, M., 2020, Microwave-Promoted Three-Component Hantzsch Synthesis of Acridinediones under Green Conditions, *Curr. Chem. Lett.*, 9, 71–78.

Zhu, A., Liu, R., and Li, L., 2017, RSC Advances Betainium-Based Ionic Liquids Catalyzed Multicomponent Hantzsch Reactions for The Efficient Synthesis of Acridinediones, *RSC Adv.*, 7, 6679–6684.

Ziarani, G.M., Badiei, A., Hassanzadeh, M., and Mousavi, S., 2014, Synthesis of 1,8-dioxo-decahydroacridine Derivatives using Sulfonic Acid Functionalized Silica (SiO_2-Pr-SO_3H) under Solvent Free Conditions, *Arab. J. Chem.*, 7, 335–339.