

DAFTAR PUSTAKA

- Aher, R.B., Wanare, G., Kawathekar, N., Kumar, R.R., Kaushik, N.K., Sahal, D., Chauhan, V.S., 2011. Dibenzylideneacetone analogues as novel Plasmodium falciparum inhibitors. *Bioorg Med Chem Lett*, **21**, 3034–3036.
- Alex, J.M., Kumar, R., 2014. 4,5-Dihydro-1H-pyrazole: an indispensable scaffold. *J Enzyme Inhib Med Chem*, **29**, 427–442.
- Alex, K., Tillack, A., Schwarz, N., Beller, M., 2008. Zinc-Catalyzed Synthesis of Pyrazolines and Pyrazoles via Hydrohydrazination. *Org. Lett.*, **10**, 2377–2379.
- Alsayari, A., Asiri, Y.I., Muhsinah, A.B., Hassan, M.Z., 2021. Anticolon Cancer Properties of Pyrazole Derivatives Acting through Xanthine Oxidase Inhibition. *Journal of Oncology*, **2021**, e5691982.
- Anney, R. J. L., Lotfi-Miri, M., Olsson, C. A., Reid, S. C., Hemphill, S. A., Patton, G. C., 2007. Variation in the gene coding for the M5 muscarinic receptor (CHRM5) influences cigarette dose but is not associated with dependence to drugs of addiction: evidence from a prospective population based cohort study of young adults. *BMC Genetics*, **8**, 46.
- Anonim, 2011, Exact Molecular Mass versus Molecular Weight, <https://www.orgchemboulder.com/Spectroscopy/MS/molmassmw.shtml>, 9 Desember 2024.
- Ariefin, M., Alfanaar, R., 2023. Immobilization of Dibenzalacetone on TiO₂ Surface and its Potential as Anti-UV Material. *Chempublish Journal*, **7**, 1–7.
- Audousset, C., McGovern, T., Martin, J. G., 2021. Role of Nrf2 in Disease: Novel Molecular Mechanisms and Therapeutic Approaches - Pulmonary Disease/Asthma. *Frontiers in Physiology*, **12**, 727806.
- Baek, G. H., Cheng, H., Choe, V., Bao, X., Shao, J., Luo, S., Rao, H., 2013. Cdc48: A Swiss Army Knife of Cell Biology. *Journal of Amino Acids*, **2013**, 183421.
- Bagchi, S., Chhibber, T., Lahooti, B., Verma, A., Borse, V., & Jayant, R. D., 2019. In-vitro blood-brain barrier models for drug screening and permeation studies: An overview. *Drug Design, Development and Therapy*, **13**, 3591–3605.
- Bandgar, B.P., Adsul, L.K., Chavan, H.V., Jalde, S.S., Shringare, S.N., Shaikh, R., Meshram, R.J., Gacche, R.N., Masand, V., 2012. Synthesis, biological evaluation, and docking studies of 3-(substituted)-aryl-5-(9-methyl-3-carbazole)-1H-2-pyrazolines as potent anti-inflammatory and antioxidant agents. *Bioorg Med Chem Lett*, **22**, 5839–5844.
- Bansal, E., Srivastava, V.K., Kumar, A., 2001. Synthesis and anti-inflammatory activity of 1-acetyl-5-substitute daryl-3-(β -aminonaphthyl)-2-pyrazolines and β -(substitute daminoethyl) amidonaphthalenes. *European Journal of Medicinal Chemistry*, **36**, 81–92.
- Bobola, M. S., Blank, A., Berger, M. S., Stevens, B. A., Silber, J. R., 2001. Apurinic/apyrimidinic endonuclease activity is elevated in human adult gliomas. *Clinical Cancer Research*, **7**(11), 3510-3518.

- Budgett, R. F., Bakker, G., Sergeev, E., Bennett, K. A., Bradley, S. J., 2022. Targeting the Type 5 Metabotropic Glutamate Receptor: A Potential Therapeutic Strategy for Neurodegenerative Diseases?. *Frontiers in Pharmacology*, **13**, 893422.
- Byrne, R. & Schneider, G., 2019. In Silico Target Prediction for Small Molecules. *Methods Mol Biol*, **1888**, 273–309.
- Carey, F. A. & Sundberg, R. J., 2000. *Advanced Organic Chemistry*, 4th Ed., Kluwer Academic, New York.
- Chambers, N. E., Millet Jr., M., Moehle, M. S., 2023. The muscarinic M4 acetylcholine receptor exacerbates symptoms of movement disorders. *Biochemical Society Transactions*, **51**(2), 691-702.
- ChemicalBook, 2024. Dibenzylideneacetone. https://www.chemicalbook.com/ChemicalProductProperty_EN_CB3705221.htm, 8 Juli 2024.
- Currie, G.M., 2018. Pharmacology, Part 2: Introduction to Pharmacokinetics. *J Nucl Med Technol*, **46**, 221–230.
- Cuzzo, B., Padala, S.A., Lappin, S.L., 2024. Physiology, Vasopressin, in: StatPearls. StatPearls Publishing, Treasure Island (FL).
- Dave, V. P. & Kaul, D., 2010. Coronary heart disease: Significance of liver X receptor α genomics. *World Journal of Cardiology*, **2**(6), 140-149.
- Dawane, B.S., Konda, S.G., Mandawad, G.G., Shaikh, B.M., 2010. Poly(ethylene glycol) (PEG-400) as an alternative reaction solvent for the synthesis of some new 1-(4-(4'-chlorophenyl)-2-thiazolyl)-3-aryl-5-(2-butyl-4-chloro-1H-imidazol-5yl)-2-pyrazolines and their in vitro antimicrobial evaluation. *Eur J Med Chem*, **45**, 387–392.
- de los Santos, J.M., López, Y., Aparicio, D., Palacios, F., 2008. A Convenient Synthesis of Substituted Pyrazolidines and Azaprolone Derivatives through Highly Regio- and Diastereoselective Reduction of 2-Pyrazolines. *J. Org. Chem.*, **73**, 550–557.
- de Oliveira, M.M., Nogueira, C.E.S., Almeida-Neto, F.W.Q., Santos, H.S., Teixeira, A.M.R., de Lima-Neto, P., Marinho, E.S., de Moraes, M.O., Pessoa, C., Barros-Nepomuceno, F.W.A., 2021. Full Spectroscopic Characterization and Cytotoxicity Activity of Synthetic Dibenzalacetone Derivatives. *Journal of Molecular Structure*, **1231**, 129670.
- Di, L. & Kerns, E. H., 2016. *Drug-Like Properties: Concepts, Structure Design and Methods from ADME to Toxicity Optimization*, 2nd Ed., Academic Press, Cambridge.
- Dong, X., 2018. Current Strategies for Brain Drug Delivery. *Theranostics*, **8**, 1481–1493.
- Ecker, G., Chiba, P., Hitzler, M., Schmid, D., 1999. Structure-activity relationship studies of propafenone analogs based on P-glycoprotein ATPase activity measurements. *Biochemical Pharmacology*, **58**, 1447-1456.
- Ekawati, L., Purwono, B., Mardjan, M.I.D., 2020. Synthesis N-Phenyl Pyrazoline from Dibenzalacetone and Heme Polymeration Inhibitory Activity (HPIA) Assay. *Key Engineering Materials*, **840**, 245–250.

- Estabrook, R.W., 2003. A passion for P450s (rememberances of the early history of research on cytochrome P450). *Drug Metab Dispos*, **31**, 1461–1473.
- Eteläinen, T.S., Silva, M.C., Uhari-Väänänen, J.K., De Lorenzo, F., Jäntti, M.H., Cui, H., Chavero-Pieres, M., Kilpeläinen, T., Mechtler, C., Svarebaha, R., Seppälä, E., Savinainen, J.R., Puris, E., Fricker, G., Gynther, M., Julku, U.H., Huttunen, H.J., Haggarty, S.J., Myöhänen, T.T., 2023. A prolyl oligopeptidase inhibitor reduces tau pathology in cellular models and in mice with tauopathy. *Sci Transl Med*, **15**, eabq2915.
- Fairley, L. H., Lai, K. O., Grimm, A., Eckert, A., Barron, A. M., 2024. The mitochondrial translocator protein (TSPO) in Alzheimer's disease: Therapeutic and immunomodulatory functions. *Biochimie*, **224**, 120-131.
- Fenstermacher J, Gross P, Sposito N, Acuff V, Pettersen S, Gruber K., 1988. Structural and Functional Variations in Capillary Systems within the Brain. *Annals of the New York Academy of Sciences*, **529**, 21–30.
- Fu, L., Shi, S., Yi, J., Wang, N., He, Y., Wu, Z., Peng, J., Deng, Y., Wang, W., Wu, C., Lyu, A., Zeng, X., Zhao, W., Hou, T., Cao, D., 2024. ADMETlab 3.0: an updated comprehensive online ADMET prediction platform enhanced with broader coverage, improved performance, API functionality and decision support. *Nucleic Acids Research*, **52**, W422–W431.
- Garza, A.Z., Park, S.B., Kocz, R., 2023. Drug Elimination, in: StatPearls. StatPearls Publishing, Treasure Island (FL).
- Gfeller, D., Grosdidier, A., Wirth, M., Daina, A., Michielin, O., Zoete, V., 2014. SwissTargetPrediction: a web server for target prediction of bioactive small molecules. *Nucleic Acids Research*, **42**, W32.
- Ghosh, M., Rana, S., 2023. The anaphylatoxin C5a: Structure, function, signaling, physiology, disease, and therapeutics. *International Immunopharmacology*, **118**, 110081.
- Gomes, C. P., Fernandes, D. E., Casimiro, F., da Mata, G. F., Passos, M. T., Varela, P., Mastroianni-Kirsztajn, G., Pesquero, J. B., 2020. Cathepsin L in COVID-19: From Pharmacological Evidences to Genetics. *Frontiers in Cellular and Infection Microbiology*, **10**, 589505.
- Gottesman, M. M. & Pastan I., 1993. Biochemistry of multidrug resistance mediated by the multidrug transporter. *Annual Review of Biochemistry*, **62**, 385-427.
- Groner, A.C., Cato, L., de Tribolet-Hardy, J., Bernasocchi, T., Janouskova, H., Melchers, D., Houtman, R., Cato, A.C.B., Tschopp, P., Gu, L., Corsinotti, A., Zhong, Q., Fankhauser, C., Fritz, C., Poyet, C., Wagner, U., Guo, T., Aebersold, R., Garraway, L.A., Wild, P.J., Theurillat, J.-P., Brown, M., 2016. TRIM24 Is an Oncogenic Transcriptional Activator in Prostate Cancer. *Cancer Cell*, **29**, 846–858.
- Gu, Y., Yu, Z., Wang, Y., Chen, L., Lou, C., Yang, C., Li, W., Liu, G., Tang, Y., 2024. admetSAR3.0: a comprehensive platform for exploration, prediction and optimization of chemical ADMET properties. *Nucleic Acids Research*, **52**, W432.
- Guo, H.-M., Wang, L.-T., Zhang, J., Zhao, P.-S., Jian, F.-F., 2008. Synthesis, IR Spectra, Crystal Structure and DFT Studies on 1-Acetyl-3-(4-

- Chlorophenyl)-5-(4-Methylphenyl)-2-Pyrazoline. *Molecules*, **13**, 2039–2048. <https://doi.org/10.3390/molecules13092039>
- Haider, K., Shafeeqe, M., Yahya, S., Yar, M.S., 2022. A comprehensive review on pyrazoline based heterocyclic hybrids as potent anticancer agents. *European Journal of Medicinal Chemistry Reports*, **5**, 100042.
- Halim, Y., 1994. Penentuan Parameter Lipofilitas Dari Ketoprofen Dan Fenbufen Dengan Cara Penentuan Nilai Log Poktanol Air Dan Perhitungan Tetapan Substituen Dari Hansch Dan Tetapan Frakmental Dari Rekker, *Skripsi*, Fakultas Farmasi Universitas Surabaya.
- Hawkins, B.T. & Davis, T. P., 2005. The blood-brain barrier/neurovascular unit in health and disease. *Pharmacol Rev.*, **57**(2), 173-185.
- He, Q., Zhang, G., Hou, D., Leng, A., Xu, M., Peng, J., Liu, T., 2011. Overexpression of sorcin results in multidrug resistance in gastric cancer cells with up-regulation of P-gp. *Oncology Reports*, **25**(1), 237-243.
- Houshia, O., Walwil, A., Jumaa, H., Qrareya, H., Daraghmeh, H., Daraghmeh, I., Owies, A., Qushtom, A., 2019. Assessment of the Ratio of Geometric Isomers of Dibenzalacetone Spectroscopically. *Journal of Pharmaceutical Research International*, **31**(4), 1–9.
- Kim, J. Y., Cho, H., Yoo, J., Kim, G. W., Jeon, Y. H., Lee, S. W., Kwon, S. H., 2022. Pathological Role of HDAC8: Cancer and Beyond. *Cells*, **11**(19), 3161.
- Kniesel, U. & Wolburg, H., 2000. Tight junctions of the blood-brain barrier. *Cell Mol Neurobiol.*, **20**(1), 57-76.
- Kundavaram, R., Vinod, J., Mulukuri, S., 2017. Synthesis and Anti-Oxidant Activity of Dibenzalketones. *International Journal of Research in Pharmacy and Chemistry*, **7**, 585–606.
- Lavecchia, A. & Cerchia, C., 2016. In silico methods to address polypharmacology: current status, applications and future perspectives. *Drug Discov Today*, **21**, 288–298.
- Lipinski, C.A., Lombardo, F., Dominy, B.W., Feeney, P.J., 1997. Experimental and computational approaches to estimate solubility and permeability in drug discovery and development settings. *Advanced Drug Delivery Reviews, In Vitro Models for Selection of Development Candidates*, **23**, 3–25.
- Liu, C., Zheng, D., Pu, X., Li, S., 2024. HDAC7: a promising target in cancer. *Frontiers in Oncology*, **14**, 1-10.
- Liu, Y., Deguchi, Y., Tian, R., Wei, D., Wu, L., Chen, W., Xu, W., Xu, M., Liu, F., Gao, S., Jaoude, J. C., Chrieki, S. P., Moussalli, M. J., Gagea, M., Morris, J., Broaddus, R. R., Zuo, X., Shureiqi, I., 2019. Pleiotropic Effects of PPAR δ Accelerate Colorectal Tumorigenesis, Progression, and Invasion. *Cancer Research*, **79**(5), 954-969.
- Mahé, O., Frath, D., Dez, I., Marsais, F., Levacher, V., Brière, J.-F., 2009. TBD-organocatalysed synthesis of pyrazolines. *Org. Biomol. Chem.*, **7**, 3648–3651.
- Maibach, H. T., Brownstein, M. J., Hersch, S. M., Anderson, K. E., Itzkowitz, D. E., Damiano, E. M., Simon, N. G., 2022. The Vasopressin 1a Receptor

- Antagonist SRX246 Reduces Aggressive Behavior in Huntington's Disease, *Journal of Personalized Medicine*, **12**(10), 1561.
- Marbun, P., 2023. Prediction Of Pharmacokinetic Properties And In Silico Study Of 2,5 - Dibenzylidene Cyclopentanone Analogs As Oxidoreductase Inhibitor In Phase I Metabolism Targeting CYP3A4, *Skripsi*, Fakultas Farmasi Universitas Gadjah Mada.
- Matiadis, D. & Sagnou, M., 2020. Pyrazoline Hybrids as Promising Anticancer Agents: An Up-to-Date Overview. *IJMS*, **21**, 5507.
- Matiadis, D., Sagnou, M., Karagiaouri, M., Pantazaki, A., Nowak, K.E., Mavroidi, B., Pelecanou, M., Katsipis, G., 2021. Synthesis and antimicrobial evaluation of a pyrazoline-pyridine silver(I) complex. *Biometals*, **34**, 67–85.
- Mayersohn, M., 1987. Drug absorption. *J Clin Pharmacol*, **27**, 634–638.
- McDonnell, A.M. & Dang, C.H., 2013. Basic Review of the Cytochrome P450 System. *J Adv Pract Oncol*, **4**, 263–268.
- McMurry, J., 2004. *Organic Chemistry*, 6th Ed., Thomson Learning, Chicago.
- Mishra, V.K., Mishra, M., Kashaw, V., Kashaw, S.K., 2017. Synthesis of 1,3,5-trisubstituted pyrazolines as potential antimalarial and antimicrobial agents. *Bioorg Med Chem*, **25**, 1949–1962.
- Mijanović, O., Jakovleva, A., Branković, A., Zdravkova, K., Pualic, M., Belozerskaya, T. A., Nikitkina, A. I., Parodi, A., Zamyatnin Jr., A. A., 2022. Cathepsin K in Pathological Conditions and New Therapeutic and Diagnostic Perspectives. *International Journal of Molecular Sciences*, **23**(22), 13762.
- Montero Vega, M. T. & de Andrés Martín, A., 2009. The significance of toll-like receptors in human diseases. *Allergologia et Immunopathologia*, **37**(5), 252-263.
- Montoya, A., Quiroga, J., Abonia, R., Noguerras, M., Cobo, J., Insuasty, B., 2014. Synthesis and in Vitro Antitumor Activity of a Novel Series of 2-Pyrazoline Derivatives Bearing the 4-Aryloxy-7-chloroquinoline Fragment. *Molecules*, **19**, 18656.
- Murga, C., Arcones, A. C., Cruces-Sande, M., Briones, A. M., Salaices, M., Mayor Jr., F., 2019. G Protein-Coupled Receptor Kinase 2 (GRK2) as a Potential Therapeutic Target in Cardiovascular and Metabolic Diseases. *Frontiers in Pharmacology*, **10**, 112.
- Naim, M.J., Alam, O., Nawaz, F., Alam, Md.J., Alam, P., 2016. Current status of pyrazole and its biological activities. *J Pharm Bioallied Sci*, **8**, 2–17.
- Nassar, A. F., Kamel, A. M., Clarimont, C., 2004. Improving the decision-making process in the structural modification of drug candidates: enhancing metabolic stability. *Drug Discovery Today*, **9**(23), 1020-1028.
- Nauduri, D. & Reddy, G.B., 1998. Antibacterials and antimycotics: Part 1: Synthesis and activity of 2-pyrazoline derivatives. *Chem Pharm Bull (Tokyo)*, **46**, 1254–1260.
- Nelson, D.R., 2009. The cytochrome p450 homepage. *Hum Genomics*, **4**, 59–65.
- Niccolini, F., Foltynie, T., Marques, T. R., Muhlert, N., Tziortzi, A. C., Searle, G. E., Natesan, S., Kapur, S., Rabiner, E. A., Gunn, R. N., Piccini, P., Politis,

- M., 2015. Loss of phosphodiesterase 10A expression is associated with progression and severity in Parkinson's disease. *Brain*, **138**(10), 3003-3015.
- Nickel, J., Gohlke, B.-O., Erehman, J., Banerjee, P., Rong, W.W., Goede, A., Dunkel, M., Preissner, R., 2014. SuperPred: update on drug classification and target prediction. *Nucleic Acids Research*, **42**, W26–W31.
- Palioura, D., Lazou, A., Drosatos, K., 2023. Krüppel-like factor (KLF)5: An emerging foe of cardiovascular health. *Journal of Molecular and Cellular Cardiology*, **163**, 56-66.
- Park, M. H. & Hong, J. T., 2016. Roles of NF-κB in Cancer and Inflammatory Diseases and Their Therapeutic Approaches. *Cells*, **5**(2), 15.
- Patel, V.M. & Desai, K.R., 2004. Eco-friendly synthesis of fluorine-containing pyrazoline derivatives over potassium carbonate. *Arkivoc*, **2004**, 123-129.
- Pavia, D.L., Lampman, G.M., Kriz, G.S., Vyvyan, J.R., 2009. *Introduction to spectroscopy*, 4th Ed., Cengage Learning, Belmont.
- Phang-Lyn, S. & Llerena, V.A., 2023. *Biochemistry, Biotransformation*, StatPearls Publishing, Treasure Island (FL).
- Pope, C., 2022, Drug Half-life Explained, <https://www.drugs.com/article/drug-half-life.html>, 1 Desember 2024.
- Purwaningsih, Y., Indriyanti, E., Syukur, M., Wigati, D., 2023. Synthesis of Dibenzalacetone using Sonochemistry and Its Antibacterial Activity Against Escherichia coli. *JKPK (Jurnal Kimia dan Pendidikan Kimia)*, **8**, 297–309.
- Reddy, V. B., Shimada, S. G., Sikand, P., Lamotte, R. H., Lerner, E. A., 2010. Cathepsin S elicits itch and signals via protease-activated receptors. *The Journal of Investigative Dermatology*, **130**(5), 1468-1470.
- Reul, J. M. H. M. & Holsboer, F., 2002. On the role of corticotropin-releasing hormone receptors in anxiety and depression. *Dialogues in Clinical Neuroscience*, **4**(1), 31-46.
- Rice, J. E., 2014. *Organic Chemistry Concepts and Applications for Medicinal Chemistry*, Academic Press, Cambridge.
- Rotondo, J. C., Mazziotta, C., Lanzillotti, C., Stefani, C., Badiale, G., Campione, G., Martini, F., Tognon, M., 2022. The Role of Purinergic P2X7 Receptor in Inflammation and Cancer: Novel Molecular Insights and Clinical Applications. *Cancers*, **14**(5), 1116.
- Safaei, S., Mohammadpoor-Baltork, I., Khosropour, A.R., Moghadam, M., Tangestaninejad, S., Mirkhani, V., 2012. Diastereoselective Synthesis of Pyrazolines using a Bifunctional Brønsted Acidic Ionic Liquid under Solvent-Free Conditions. *Advanced Synthesis & Catalysis*, **354**, 3095–3104.
- Sardjiman, S.S., Reksahadiprodjo, M.S., Hakim, L., van der Goot, H., Timmerman, H., 1997. 1,5-Diphenyl-1,4-pentadiene-3-ones and cyclic analogues as antioxidative agents. Synthesis and structure-activity relationship. *European Journal of Medicinal Chemistry*, **32**, 625–630.
- Seelig, A., 1998. A general pattern for substrate recognition by P-glycoprotein. *European Journal of Biochemistry*, **251**(1), 252-261.
- Senior, A. E., al-Shawi, M. K., Urbatsch, I. L., 1995. The catalytic cycle of P-glycoprotein. *FEBS Lett.*, **377**(3), 285-289.

- Shahar Yar, M., Bakht, M.A., Siddiqui, A.A., Abdullah, M.M., De Clercq, E., 2009. Synthesis and evaluation of in vitro antiviral activity of novel phenoxy acetic acid derivatives. *J Enzyme Inhib Med Chem*, **24**, 876–882.
- Sid, A., Messai, A., Parlak, C., Kazanci, N., Luneau, D., Keşan, G., Rhyman, L., Alswaidan, I., Ramasami, P., 2016. 1-Formyl-3-phenyl-5-(4-isopropylphenyl)-2-pyrazoline: Synthesis, characterization, antimicrobial activity and DFT studies. *Journal of Molecular Structure*, **1121**, 46–53.
- SigmaAldrich, 2024. Trans,trans-Dibenzylideneacetone. <https://www.sigmaaldrich.com/ID/en/product/aldrich/246425>, 1 November 2024.
- Singh, P., Negi, J.S., Nee Pant, G.J., Rawat, M.S.M., Budakoti, A., 2009. Synthesis and Characterization of a Novel 2-Pyrazoline. *Molbank*, **2009**, M614.
- Slominski, A., 2009. On the role of the corticotropin-releasing hormone signalling system in the aetiology of inflammatory skin disorders. *The British journal of dermatology*, **160**, 229.
- Smith, D. A., Beaumont, K., Maurer, T. S., & Di, L., 2015. Volume of Distribution in Drug Design. *Journal of Medicinal Chemistry*, **58**(15), 5691-5698.
- Steinfeld, R., Reinhardt, K., Schreiber, K., Hillebrand, M., Kraetzner, R., Bruck, W., Saftig, P., Gartner, J., 2006. Cathepsin D deficiency is associated with a human neurodegenerative disorder. *American Journal of Human Genetics*, **78**(6), 988-998.
- Sub Laban, T., Saadabadi, A., 2024. Monoamine Oxidase Inhibitors (MAOI), in: StatPearls. StatPearls Publishing, Treasure Island (FL).
- Thomas, D. R., 5-HT_{5A} receptors as a therapeutic target. *Pharmacology & Therapeutics*, **111**(3), 707-14.
- Toutain, P.L., Bousquet-Mélou, A., 2004. Plasma clearance. *J Vet Pharmacol Ther*, **27**, 415–425.
- Umemori, Y., Kuribayashi, K., Nirasawa, S., Kondoh, T., Tanaka, M., Kobayashi, D., Watanabe, N., 2014. Protein kinase C ζ regulates survivin expression and inhibits apoptosis in colon cancer. *International Journal of Oncology*, **45**(3), 1043-1050.
- Vahedpour, T., Hamzeh-Mivehroud, M., Hemmati, S., Dastmalchi, S., 2021. Synthesis of 2-Pyrazolines from Hydrazines: Mechanisms Explained. *Chemistry Select*, **6**, 6483–6506.
- Veber, D.F., Johnson, S.R., Cheng, H.-Y., Smith, B.R., Ward, K.W., Kopple, K.D., 2002. Molecular Properties That Influence the Oral Bioavailability of Drug Candidates. *J. Med. Chem.*, **45**, 2615–2623.
- Wanat, K., 2020. Biological barriers, and the influence of protein binding on the passage of drugs across them. *Molecular Biology Reports*, **47**, 3221–3231.
- Wahyuningsih, T.D., Suma, A., Astuti, E., 2019. Synthesis, anticancer activity, and docking study of N-acetyl pyrazolines from veratraldehyde. *Journal of Applied Pharmaceutical Science*, **9**, 14–20.
- Wu, X.-F., Neumann, H., Beller, M., 2011. A Straightforward Synthesis of Pyrazolines and Pyrazoles: Palladium-Catalyzed Carbonylative Vinylation–Cyclocondensation Reactions of Aryl Halides. *European Journal of Organic Chemistry*, **2011**, 4919–4924.

- Xu, X., Li, J., Zhang, Y., Zhang, L., 2021. Arachidonic Acid 15-Lipoxygenase: Effects of Its Expression, Metabolites, and Genetic and Epigenetic Variations on Airway Inflammation. *Allergy, Asthma & Immunology Research*, **13**, 684.
- Xue, F., Jiang, T., Jiang, B., Cheng, X., He, Y., Li, X., Yang, X., 2014. Cardiac troponin I elevation with supraventricular tachycardia: two case reports and review of the literature. *BMC Research Notes*, **7**, 136.
- Yanagita, H., Kanemasa, S., 2007. Synthesis of 3-(2-Pyridyl)-2-pyrazoline Derivatives (III) as Candidates for Heterocyclic Chiral Ligands of the Chirality Relay Types. *Cheminform*, **38**.
- Zadorozhnii, P. V., Kiselev, V. V., & Kharchenko, A. V., 2022. In Silico ADME Profiling of Salubrinol and Its Analogues. *Future Pharmacol*, **2**(2), 160-197.
- Zanger, U.M., Turpeinen, M., Klein, K., Schwab, M., 2008. Functional pharmacogenetics/genomics of human cytochromes P450 involved in drug biotransformation. *Anal Bioanal Chem*, **392**, 1093–1108.
- Zendrato, R., Margono, S. A., 2005. Sintesis Diasetil Gamavuton-0 dengan Mmenggunakan Asetil Klorida sebagai Acylating Agent. *Majalah Farmasi Indonesia*, **17** (1), 25-31.
- Zhang, D.-Y., Shao, L., Xu, J., Hu, X.-P., 2015. Copper-Catalyzed Asymmetric Formal [3 + 2] Cycloaddition of Propargylic Acetates with Hydrazines: Enantioselective Synthesis of Optically Active 2-Pyrazolines. *ACS Catal.*, **5**, 5026–5030.
- Zhao, H., Tang, S., Xu, X., Du, L., 2016. Hydrogen Bonding Interaction between Atmospheric Gaseous Amides and Methanol. *Int J Mol Sci*, **18**, 4.
- Zorrilla, E.P., 2017. Chapter 26 - Corticotropin-Releasing Factor Receptor Antagonists, in: Fink, G. (Ed.), *Stress: Neuroendocrinology and Neurobiology*. Academic Press, San Diego, pp. 265–277.
- Zuehlke, A.D., Beebe, K., Neckers, L., Prince, T., 2015. Regulation and function of the human *HSP90AA1* gene. *Gene*, **570**, 8–16.