

## REFERENCES

- Agustin, T., 2019, Potensi Metabolit Aktif Dalam Sayuran Cruciferous Untuk Menghambat Pertumbuhan Sel Kanker. *J. Penelit. Perawat Prof.*, 2(4), 89-94.
- Ahmadi, S., Ghanbari, H., Lotfi, S., and Azimi, N., 2021, Predictive QSAR Modeling for the Antioxidant Activity of Natural Compounds Derivatives Based on Monte Carlo Method, *Mol. Divers.*, 25(1), 87 – 97.
- Al-Fayez, N., Elsayy, H., Mansour, M. A., Akbar Ali, M., and Elghamry, I., 2022, Synthesis, Anticancer, Antioxidant, Anti-Inflammatory, Antimicrobial Activities, Molecular Docking, and DFT Studies of Sultams Derived from Saccharin. *Molecules*, 27(20), 1–21.
- Brocos, P., Piñeiro, Á., Bravo, R., and Amigo, A., 2003, Refractive Indices, Molar Volumes and Molar Refractions of Binary Liquid Mixtures: Concepts and Correlations, *Phys. Chem. Chem. Phys.*, 5(3), 550–557.
- De, P., Kar, S., Ambure, P., and Roy, K., 2022, Prediction Reliability of QSAR Models: An Overview of Various Validation Tools. *Arch. Toxicol.*, 96(5), 1279–1295.
- de Sousa, B., Leite, J., Mendes, T., Varejão, E., Chaves, A., Da Silva, J., Agrizzi, A., Ferreira, P., Pilau, E., Silva, E., and Santos, M. D., 2021, Inhibition of Acetylcholinesterase by Coumarin-Linked Amino Acids Synthetized via Triazole Associated with Molecule Partition Coefficient, *J. Braz. Chem. Soc.*, 32(3), 0103-5053.
- de Souza, Rodrigo. O. M. A., Miranda, Leandro. S. M., and Bornscheuer, Uwe. T., 2017, A Retrosynthesis Approach for Biocatalysis in Organic Synthesis, *Chem. - Eur. J.*, 23(50), 12040–12063.
- Foo, J. B., Low, M. L., Lim, J. H., Lor, Y. Z., Zainol A. R., Eh Dam, V., Rahman, N. A., Beh, C. Y., Chan, L. C., How, C. W., Tor, Y. S, and Yazan, L. S., 2018, Copper Complex Derived from S-benzylthiocarbamate and 3-acetylcoumarin Induced Apoptosis in Breast Cancer Cell,. *BioMetals*, 31(4), 505–515.
- Frimayanti, N., Yam, M. L., Lee, H. B., Othman, R., Zain, S. M., and Rahman, N. A., 2011, Validation of Quantitative Structure-Activity Relationship (QSAR) Model for Photosensitizer Activity Prediction, *Int. J. Mol. Sci.*, 12(12), 8626–8644.
- Garcia-Oliveira, P., Otero, P., Pereira, A. G., Chamorro, F., Carpena, M., Echave, J., Fraga-Corral, M., Simal-Gandara, J., and Prieto, M., 2021, Status and Challenges of Plant-Anticancer Compounds in Cancer Treatment, *Pharmaceuticals.*, 14(2), 1–28.
- Gondhowiardjo, S., Christina, N., Ganapati, N. P. D., Hawariy, S., and Radityamurti, F., 2018, Five-Year Cancer Epidemiology at the National

- Referral Hospital: Hospital-Based Cancer Registry Data in Indonesia, *Am. J. Clin.*, 7(1), 190-203.
- Gramatica, P., 2007, Principles of QSAR Models Validation: Internal and External, *QSAR Comb. Sci.*, 26(5), 694–701.
- Gullo, I., Grillo, F., Mastracci, L., Vanoli, A., Carneiro, F., Saragoni, L., Limarzi, F., Ferro, J., Parente, P., and Fassan, M., 2020, Precancerous Lesions of the Stomach, Gastric Cancer and Hereditary Gastric Cancer Syndromes, *Pathologica*, 112(3), 166-185.
- Ilic, M., and Ilic, I., 2022, Epidemiology of Stomach Cancer, *World J. Gastroenterol.*, 28(12), 1187–1203.
- Kenchappa, R., Bodke, Y. D., Peethambar, S. K., Telkar, S., & Bhovi, V. K., 2013, Synthesis of  $\beta$ -Amino Carbonyl Derivatives of Coumarin and Benzofuran: Evaluation of Their Biological Activities. *Med. Chem. Res.*, 22(10), 4787–4797.
- Lewandowski, W., Lewandowska, H., Golonko, A., Świdorski, G., Świśtocka, R., and Kalinowska, M., 2020, Correlations between Molecular Structure and Biological Activity in "Logical Series" of Dietary Chromone Derivatives, *PLoS ONE*, 15(8), 1–26.
- Mitra, I., Roy, P. P., Kar, S., Ojha, P. K., and Roy, K., 2010, On further application of  $r^2_m$  as A Metric for Validation of QSAR Models, *J. Chemometrics.*, 24(1), 22–33.
- Mohareb, R. M., and Abdo, N. Y. M., 2015, Synthesis and Cytotoxic Evaluation of Pyran, Dihydropyridine and Thiophene Derivatives of 3-Acetylcoumarin, *Chem. Pharm. Bull.*, 63(9), 678–687.
- Muratov, E. N., Varlamova, E. V., Artemenko, A. G., Polishchuk, P. G., and Kuz'Min, V. E., 2012, Existing and Developing Approaches for QSAR Analysis of Mixtures, *Mol. Inform.*, 31(3–4), 202–221.
- Nakata, M., & Maeda, T., 2023, PubChemQC B3LYP/6-31G\*//PM6 Data Set: The Electronic Structures of 86 Million Molecules Using B3LYP/6-31G\* Calculations. Existing and Developing Approaches for QSAR Analysis of Mixtures, *Mol. Inform.*, 63(18), 5734–5754.
- Nasab, N. H., Azimian, F., Kruger, H. G., and Kim, S. J., 2022, Coumarin-Chalcones Generated from 3-Acetylcoumarin as a Promising Agent: Synthesis and Pharmacological Properties. *ChemistrySelect*, 7(11). e202200238.
- Nongpiur, C. G. L., Soh, C., Diengdoh, D. F., Verma, A. K., Gogoi, R., Banothu, V., Kaminsky, Wr., and Kollipara, M. R., 2023, 3-Acetyl-Coumarin-Substituted Thiosemicarbazones and Their Ruthenium, Rhodium and Iridium Metal Complexes: An Investigation of the Antibacterial, Antioxidant and Cytotoxicity Activities, *J. Organomet. Chem.*, 998.

- Palmer, P. B., and Connell, D. G. O., 2009, Regression Analysis for Prediction: Understanding the Process, *Cardiopulm. Phys. Ther. J.*, 20(3), 23–26.
- Praveen, P. A., Saravanapriya, D., Bhat, S. V., Arulkannan, K., and Kanagasekaran, T., 2024, Comprehensive Analysis of DFT-3C Methods with B3LYP and Experimental Data to Model Optoelectronic Properties of Tetracene. *Mater. Sci. Semicond. Process.*, 173, 108159.
- Rappel, C., Galanski, M., Yasemi, A., Habala, L., and Keppler, B. K., 2005, Analysis of Anticancer Platinum(II)-Complexes by Microemulsion Electrokinetic Chromatography: Separation of Diastereomers and Estimation of Octanol-Water Partition Coefficients, *Electrophoresis*, 26(4–5), 878–884.
- Rath, S., Tripathy, A., and Tripathy, A. R., 2020, Prediction of New Active Cases of Coronavirus Disease (COVID-19) Pandemic using Multiple Linear Regression Model, *Diabetes Metab. Syndr. Clin. Res. Rev.*, 14(5), 1467–1474.
- Rawat, A., and Vijaya Bhaskar Reddy, A., 2022 Recent Advances on Anticancer Activity of Coumarin Derivatives, *Eur. J. Med. Chem.*, 5, 100038.
- Roy, K., Pal, D. K., De, A. U., and Sengupta, C., 1999, Hansch Analysis of Anticancer Activities of C2-Modified Paclitaxel Analogs Against Human Ovarian Carcinoma 1A9, Human Colon Carcinoma HCT116, and Human Burkitt Lymphoma CA46 Cell Lines, *Indian J. Chem.*, 38B(10), 1194-1202.
- Roy, P. P., Paul, S., Mitra, I., and Roy, K., 2009, On Two Novel Parameters for Validation of Predictive QSAR Models, *Molecules.*, 14(5), 1660–1701.
- Serban, E. A., Diaconu, I., Mirea, C. M., Ruse, E., and Nechifor, G., 2016, Partition of Indole-3-acetic Acid in Biphasic Systems, *Rev. Chim.*, 67(4), 634–638.
- Sexton, R. E., Al Hallak, M. N., Diab, M., and Azmi, A. S., 2020, Gastric Cancer: a Comprehensive Review of Current and Future Treatment Strategies, *Cancer Metast Rev.*, 39(4), 1179–1203.
- Shayanfar, S., and Shayanfar, A., 2022 Comparison of Various Methods for Validity Evaluation of QSAR Models, *BMC Chemistry.*, 16(1), 1–9.
- Singh, A. K., Novak, J., Kumar, A., Singh, H., Thareja, S., Pathak, P., Grishina, M., Verma, A., Yadav, J. P., Khalilullah, H., Pathania, V., Nandanwar, H., Jaremko, M., Emwas, A., & Kumar, P., 2022, Gaussian Field-based 3D-QSAR and Molecular Simulation Studies to Design Potent Pyrimidine–sulfonamide Hybrids as Selective BRAF<sup>V600E</sup> Inhibitors, *RSC Adv.*, 12(46), 30181–30200.
- Soh, C., Kollipara, M. R., Phanrang, P. T., Gannon, P. M., Ghate, M. M., Poluri, K. M., Kaminsky, W., and Rymmai, E. K., 2024, Arene Ruthenium(II) Complexes with 3-Acetylcoumarin Derivatives Bearing a 3-Hydroxy-2-Naphthoic Hydrazide Moiety: Synthesis, DFT Calculations, and Antioxidant Studies. *J. Mol. Struct.*, 1317, 139101.
- Veerasamy, R., Rajak, H., Jain, A., Sivadasan, S., Varghese, C. P., and Agrawal, R.

- K., 2011, Validation of QSAR Models – Strategies and Importance, *Int. J. Drug. Des. Discov.*, 2(3), 511–519.
- Waldum, H., and Fossmark, R., 2021, Gastritis, Gastric Polyps and Gastric Cancer, *Int. J. Mol. Sci.*, 22(12), 1–14.
- Yang, K., Lu, L., Liu, H., Wang, X., Gao, Y., Yang, L., Li, Yupeng., Su, Meiling, Jin, Ming., and Khan, Samiullah., 2020, A Comprehensive Update on Early Gastric Cancer: Defining Terms, Etiology, and Alarming Risk Factors, *Expert. Rev. Gastroenterol. Hepatol.*, 15(3), 255-273.
- Yin, S., Zheng, X., Yao, X., Wang, Y., and Liao, D., 2013, Synthesis and Anticancer Activity of Mono-Carbonyl Analogues of Curcumin. *J. Cancer. Ther.*, 04(01), 113–123.
- Yulistiani, Y., Abdissalam, E., Rahem, A., Hamidi, N. F., and Utomo, F. N., 2024, Cost Burden of Chemotherapy for Indonesian Healthcare Insurance and Social Security/Jaminan Kesehatan Nasional (JKN) Patients with non-Hodgkin Lymphoma, *J. Oncol. Pharm. Pract.*, 30(6), pp-pp.
- Zafrani, Y., Sod-Moriah, G., Yeffet, D., Berliner, A., Amir, D., Marciano, D., Elias, Shlomi., Katalan, Shafhaf., Ashkenazi, Nissan., Madmon, Moran., Gershonov, Eytan., and Saphier, Sigal., 2019, CF<sub>2</sub>H, a Functional Group-Dependent Hydrogen-Bond Donor: Is It a More or Less Lipophilic Bioisostere of OH, SH, and CH<sub>3</sub>?, *J. Med. Chem.*, 62(11), 5628–5637.
- Zeb, Z., Sharif, A., Akhtar, B., & Shahnaz., 2024, 3-Acetyl Coumarin Alleviates Neuroinflammatory Responses and Oxidative Stress in Aluminum Chloride-Induced Alzheimer’s Disease Rat Model, *Inflammopharmacol.*, 32(2), 1371–1386.