(1) Avdeef, A. *Absorption and Drug Development.*; John Wiley & Sons, 2012.

(2) Tsantili-Kakoulidou, A.; Panderi, I.; Csizmadia, F.; Darvas, F. Prediction of Distribution Coefficient from Structure. 2. Validation of Prolog D, an Expert System. *J.Am. Pharm. Assoc.* **1997**, *86* (10), 1173–1179.

(3) Bezençon, J.; Wittwer, M. B.; Cutting, B.; Smieško, M.; Wagner, B.; Kansy, M.; Ernst, B. PKa Determination by 1H NMR Spectroscopy - An Old Methodology Revisited. *J. Pharm. Biomed. Anal.* **2014**, *93*, 147–155. https://doi.org/10.1016/j.jpba.2013.12.014.

(4) Voigt, W.; Mannhold, R.; Limberg, J.; Blaschke, G. Interactions of Antiarrhythmics with Artificial Phospholipid Membranes. *J. Pharm. Sci* **1988**, *77* (12), 1018–1020.

(5) Roseman’, T. J.; Yalkowsky, S. H. Physicochemical Properties of Prostaglandin FZa (Tromethamine Salt): Solubility Behavior, Surface Properties, and Ionization Constants. *J. Pharm. Sci* **1973**, *62* (10), 1680–1685.

(6) Shalaeva, M.; Kenseth, J.; Lombardo, F.; Bastin, A. Measurement of Dissociation Constants (pKa Values) of Organic Compounds by Multiplexed Capillary Electrophoresis Using Aqueous and Cosolvent Buffers. *J. Pharm. Sci* **2008**, *97* (7), 2581–2606. https://doi.org/10.1002/jps.21287.

(7) Qiang, Z.; Adams, C. Potentiometric Determination of Acid Dissociation Constants (pK a) for Human and Veterinary Antibiotics. *Water Res.* **2004**, *38* (12), 2874–2890. https://doi.org/10.1016/j.watres.2004.03.017.

(8) Santos, T. de A. D. dos; Costa, D. O. da; Pita, S. S. da R.; Semaan, F. S. Potentiometric and Conductimetric Studies of Chemical Equilibria for Pyridoxine Hydrochloride in Aqueous Solutions: Simple Experimental Determination of pKa Values and Analytical Applications to Pharmaceutical Analysis. *Ecl. Quím* **2010**, *35* (4), 81–86.

(9) Morimotol, K.; Nagayasu, A.; Fukanoki, S.; Morisaka, K.; Hyon2, S.-H.; Ikada, Y. Evaluation of Polyvinyl Alcohol Hydrogel as Sustained-Release Vehicle for Transdermal System of Bunitrolol-HC1-1 1. *Drug. dev. Ind. Pharm.* **1990**, *16* (1), 13–29.

(10) Mannhold, R.; Dross, K. P.; FRekker, R.; Steen, van der. Drug Lipophilicity in QSAR Practice: I. A Comparison of Experimental with Calculative Approaches. *Quant. Stuct-Act. Relat* **1990**, *9*, 21–28.

(11) Loftsson, T.; Thorisdóttir, S.; Fridriksdóttir, H.; Stefánsson, E. Enalaprilat and Enalapril Maleate Eyedrops Lower Intraocular Pressure in Rabbits. *Acta Ophthalmol.* **2010**, *88* (3), 337–341. https://doi.org/10.1111/j.1755-3768.2008.01495.x.

(12) Islam, M. S.; Narurkar, M. M. Solubility, Stability and Ionization Behaviour of Famotidine. *J. Pharm. Pharmacol.* **1993**, *45* (8), 682–686. https://doi.org/10.1111/j.2042-7158.1993.tb07088.x.

(13) Scherrer, R. A.; Donovan, S. F. Automated Potentiometric Titrations in KCl/ Water-Saturated Octanol: Method for Quantifying Factors Influencing Ion-Pair Partitioning. *Anal. Chem.* **2009**, *81* (7), 2768–2778. https://doi.org/10.1021/ac802729k.

(14) Deng, Y.; Li, B.; Yu, K.; Zhang, T. Biotransformation and Adsorption of Pharmaceutical and Personal Care Products by Activated Sludge after Correcting Matrix Effects. *Sci. Total Environ.* **2016**, *544*, 980–986. https://doi.org/10.1016/j.scitotenv.2015.12.010.

(15) Franke, U.; Munk, A.; Wiese, M. Ionization Constants and Distribution Coefficients of Phenothiazines and Calcium Channel Antagonists Determined by a pH-Metric Method and Correlation with Calculated Partition Coefficients. *J. Pharm. Sci* **1999**, *88* (1), 89–95. https://doi.org/10.1021/js980206m.

(16) Avdeef, A.; Box, K. J.; Comer, J. E. A.; Hibbert, C.; Tam, K. Y. pH-Metric logP 10. Determination of Liposomal Membrane-Water Partition Coefficient of Ionizable Drugs. *Pharm. Res.* **1998**, *15* (2), 209–215.

(17) Thanacoody, R. H. K. Thioridazine: The Good and the Bad. *Recent Pat. Antiinfect. Drug. Discov.* **2011**, *6*, 92–98.

(18) Martínez, V.; Maguregui, M. I.; Jiménez, R. M.; Alonso, R. M. Determination of the pK a Values of B-Blockers by Automated Potentiometric Titrations. *J. Pharm. Biomed. Anal.* **2000**, *23*, 459–468.

(19) Huerta, B.; Jakimska, A.; Gros, M.; Rodríguez-Mozaz, S.; Barceló, D. Analysis of Multi-Class Pharmaceuticals in Fish Tissues by Ultra-High-Performance Liquid Chromatography Tandem Mass Spectrometry. *J. Chromatogr. A.* **2013**, *1288*, 63–72. https://doi.org/10.1016/j.chroma.2013.03.001.

(20) Fini, A.; Fazio, G.; Feroci, G. Solubility and Solubilization Properties of Non-Steroidal Anti-Inflammatory Drugs. *Int. J. Pharm.* **1995**, *126* (1–2), 95–102. https://doi.org/10.1016/0378-5173(95)04102-8.

(21) Jacka, M. R. *Clarke’s Isolation and Identification of Drugs*, 2nd ed.; Moffat, A. C., Jackson, J. V., Moss, M. S., Widdop, B., Greenfield, E. S., Eds.; Pharmaceutical Press, 2000.

(22) Nakamura, Y.; Yamamoto, H.; Sekizawa, J.; Kondo, T.; Hirai, N.; Tatarazako, N. The Effects of pH on Fluoxetine in Japanese Medaka (Oryzias Latipes): Acute Toxicity in Fish Larvae and Bioaccumulation in Juvenile Fish. *Chemosphere* **2008**, *70* (5), 865–873. https://doi.org/10.1016/j.chemosphere.2007.06.089.

(23) Schräder, W.; Andersson, J. T. Fast and Direct Method for Measuring 1-Octanol-Water Partition Coefficients Exemplified for Six Local Anesthetics. *J. Pharm. Sci* **2001**, *90* (12), 1948–1954. https://doi.org/10.1002/JPS.1145.

(24) Avdeef, A. *Sirius Technical Application Notes (STAN)*; Sirius Analytical Instruments Ltd., 1994; Vol. 1.

(25) Caron, G.; Steyaert, G.; Pagliara, A.; Âde, F.; Reymond, Â.; Crivori, P.; Gaillard, P.; Carrupt, P.-A.; Avdeef, A.; Comer, J.; Box, K. J.; Girault, H. H.; Testa, B. Structure-Lipophilicity Relationships of Neutral and Protonated b-Blockers Intra-and Intermolecular Effects in Isotropic Solvent Systems. https://doi.org/10.1002/(SICI)1522-2675(19990804)82:8.

(26) Avdeef, A. *Sirius Technical Application Notes (STAN)*; Sirius Analytical Instruments Ltd., 1995; Vol. 2.

(27) Lombardo, F.; Shalaeva, M. Y.; Tupper, K. A.; Gao, F.; Abraham, M. H. ElogP(Oct): A Tool for Lipophilicity Determination in Drug Discovery. *J. Med. Chem.* **2000**, *43* (15), 2922–2928. https://doi.org/10.1021/JM0000822/ASSET/IMAGES/MEDIUM/JM0000822E00013.GIF.

(28) Winiwarter, S.; Bonham, N. M.; Ax, F.; Hallberg, A.; Lennernäs, H.; Karlén, A. Correlation of Human Jejunal Permeability (in Vivo) of Drugs with Experimentally and Theoretically Derived Parameters. A Multivariate Data Analysis Approach. *J. Med. Chem.* **1998**, *41* (25), 4939–4949. https://doi.org/10.1021/JM9810102/SUPPL\_FILE/JM9810102\_S.PDF.

(29) Luger, P.; Daneck, K.; Engel, W.; Trummlitz, G.; Wagner, K. Structure and Physicochemical Properties of Meloxicam, a New NSAID. *Eur. J. Pharm. Sci.* **1996**, *4* (3), 175–187. https://doi.org/10.1016/0928-0987(95)00046-1.

(30) Takács-Novák, K.; Józan, M.; Hermecz, I.; Szász, G. Lipophilicity of Antibacterial Fluoroquinolones. *Int. J. Pharm.* **1992**, *79* (1–3), 89–96. https://doi.org/10.1016/0378-5173(92)90099-N.

(31) Carda-Broch, S.; Berthod, A. pH Dependence of the Hydrophobicity of β-Blocker Amine Compounds Measured by Counter-Current Chromatography. *J. Chromatogr. A.* **2003**, *995* (1–2), 55–66. https://doi.org/10.1016/S0021-9673(03)00534-X.

(32) Disdier, Z.; Savoye, S.; Dagnelie, R. V. H. Effect of Solutes Structure and pH on the N-Octanol/Water Partition Coefficient of Ionizable Organic Compounds. *Chemosphere* **2022**, *304*. https://doi.org/10.1016/j.chemosphere.2022.135155.

(33) Fauchere, J.; Pliska, V. Hydrophobic Parameters II of Amino Acid Side-Chains from the Partitioning of N-Acetyl-Amino Acid Amides. *Eur. J. Med. Chem.* **1983**, *18*.