

REFERENCE

- Ameer, K., Shahbaz, H. M., & Kwon, J. H. (2017). Green Extraction Methods for Polyphenols from Plant Matrices and Their Byproducts: A Review. In *Comprehensive Reviews in Food Science and Food Safety* (Vol. 16, Issue 2, pp. 295–315). Blackwell Publishing Inc. <https://doi.org/10.1111/1541-4337.12253>
- Ampofo, J., & Ngadi, M. (2022). Ultrasound-assisted processing: Science, technology and challenges for the plant-based protein industry. *Ultrasonics Sonochemistry*, 84(February), 105955. <https://doi.org/10.1016/j.ultsonch.2022.105955>
- Anticona, M., Blesa, J., Lopez-Malo, D., Frigola, A., & Esteve, M. J. (2021). Effects of ultrasound-assisted extraction on physicochemical properties, bioactive compounds, and antioxidant capacity for the valorization of hybrid Mandarin peels. *Food Bioscience*, 42, 101185. <https://doi.org/10.1016/j.fbio.2021.101185>
- Antoniou, E., Margonis, G. A., Angelou, A., Pikouli, A., Argiri, P., Karavokyros, I., Papalois, A., & Pikoulis, E. (2016). The TNBS-induced colitis animal model: An overview. *Annals of Medicine and Surgery*, 11, 9–15. <https://doi.org/10.1016/j.amsu.2016.07.019>
- Arab, H. H., Eid, A. H., Mahmoud, A. M., & Senousy, M. A. (2021). Linagliptin mitigates experimental inflammatory bowel disease in rats by targeting inflammatory and redox signaling. *Life Sciences*, 273. <https://doi.org/10.1016/j.lfs.2021.119295>
- Assefa, A. D., Saini, R. K., & Keum, Y. S. (2017). Extraction of antioxidants and flavonoids from yuzu (*Citrus junos* Sieb ex Tanaka) peels: a response surface methodology study. *Journal of Food Measurement and Characterization*, 11(2), 364–379. <https://doi.org/10.1007/s11694-016-9405-1>
- Bagdas, D., Gul, Z., Meade, J. A., Cam, B., Cinkilic, N., & Gurun, M. S. (2019). Pharmacologic Overview of Chlorogenic Acid and its Metabolites in Chronic Pain and Inflammation. *Current Neuropharmacology*, 18(3), 216–228. <https://doi.org/10.2174/1570159x17666191021111809>
- Barros, V. J. da S., Severo, J. S., Mendes, P. H. M., da Silva, A. C. A., de Oliveira, K. B. V., Parente, J. M. L., Lima, M. M., Neto, E. M. M., Aguiar dos Santos, A., & Tolentino, M. (2021). Effect of dietary interventions on inflammatory biomarkers of inflammatory bowel diseases: A systematic review of clinical trials. *Nutrition*, 91–92. <https://doi.org/10.1016/j.nut.2021.111457>
- Bevivino, G., & Monteleone, G. (2018). Advances in understanding the role of cytokines in inflammatory bowel disease. *Expert Review of Gastroenterology*

and *Hepatology*, 12(9), 907–915.
<https://doi.org/10.1080/17474124.2018.1503053>

- Biasi, F., Leonarduzzi, G., Oteiza, P. I., & Poli, G. (2013). Inflammatory bowel disease: Mechanisms, redox considerations, and therapeutic targets. *Antioxidants and Redox Signaling*, 19(14), 1711–1747. <https://doi.org/10.1089/ars.2012.4530>
- Bilsborough, J., Fiorino, M. F., & Henkle, B. W. (2021). Select animal models of colitis and their value in predicting clinical efficacy of biological therapies in ulcerative colitis. *Expert Opinion on Drug Discovery*, 16(5), 567–577. <https://doi.org/10.1080/17460441.2021.1851185>
- Bouaoudia-Madi, N., Boulekbache-Makhlouf, L., Madani, K., Silva, A. M. S., Dairi, S., Oukhmanou-Bensidhoum, S., & Cardoso, S. M. (2019). Optimization of ultrasound-assisted extraction of polyphenols from myrtus communis L. Pericarp. *Antioxidants*, 8(7), 1–17. <https://doi.org/10.3390/antiox8070205>
- Boukroufa, M., Boutekedjiret, C., Petigny, L., Rakotomanomana, N., & Chemat, F. (2015). Bio-refinery of orange peels waste: A new concept based on integrated green and solvent free extraction processes using ultrasound and microwave techniques to obtain essential oil, polyphenols and pectin. *Ultrasonics Sonochemistry*, 24, 72–79. <https://doi.org/10.1016/j.ultsonch.2014.11.015>
- Brenna, Ø., Furnes, M. W., Drozdov, I., van Beelen Granlund, A., Flatberg, A., Sandvik, A. K., Zwigglelaar, R. T. M., Mårvik, R., Nordrum, I. S., Kidd, M., & Gustafsson, B. I. (2013). Relevance of TNBS-Colitis in Rats: A Methodological Study with Endoscopic, Historical and Transcriptomic Characterization and Correlation to IBD. *PLoS ONE*, 8(1), 5–9. <https://doi.org/10.1371/journal.pone.0054543>
- Chávez-González, M. L., Sepúlveda, L., Verma, D. K., Luna-García, H. A., Rodríguez-Durán, L. V., Ilina, A., & Aguilar, C. N. (2020). Conventional and emerging extraction processes of flavonoids. In *Processes* (Vol. 8, Issue 4). MDPI AG. <https://doi.org/10.3390/PR8040434>
- Chekalina, N., Burmak, Y., Petrov, Y., Borisova, Z., Manusha, Y., Kazakov, Y., & Kaidashev, I. (2018). Quercetin reduces the transcriptional activity of NF-κB in stable coronary artery disease. *Indian Heart Journal*, 70(5), 593–597. <https://doi.org/10.1016/j.ihj.2018.04.006>
- Chelakkot, C., Ghim, J., & Ryu, S. H. (2018). Mechanisms regulating intestinal barrier integrity and its pathological implications. In *Experimental and Molecular Medicine* (Vol. 50, Issue 8). Nature Publishing Group. <https://doi.org/10.1038/s12276-018-0126-x>
- Chen, B., Luo, J., Han, Y., Du, H., Liu, J., He, W., Zhu, J., Xiao, J., Wang, J., Cao,

- Y., Xiao, H., & Song, M. (2021). Dietary Tangeretin Alleviated Dextran Sulfate Sodium-Induced Colitis in Mice via Inhibiting Inflammatory Response, Restoring Intestinal Barrier Function, and Modulating Gut Microbiota. *Journal of Agricultural and Food Chemistry*, 69(27), 7663–7674. <https://doi.org/10.1021/acs.jafc.1c03046>
- Chen, X., Zhao, X., Wang, H., Yang, Z., Li, J., & Suo, H. (2017). Prevent effects of lactobacillus fermentum HY01 on dextran sulfate sodium-induced colitis in mice. *Nutrients*, 9(6), 1–12. <https://doi.org/10.3390/nu9060545>
- Cilla, A., Rodrigo, M. J., Zacarías, L., De Ancos, B., Sánchez-Moreno, C., Barberá, R., & Alegría, A. (2018). Protective effect of bioaccessible fractions of citrus fruit pulps against H₂O₂-induced oxidative stress in Caco-2 cells. *Food Research International*, 103, 335–344. <https://doi.org/10.1016/j.foodres.2017.10.066>
- Costamagna, D., Costelli, P., Sampaolesi, M., & Penna, F. (2015). Role of Inflammation in Muscle Homeostasis and Myogenesis. *Mediators of Inflammation*, 2015. <https://doi.org/10.1155/2015/805172>
- Dimitrov, K., Pradal, D., Vauchel, P., Baouche, B., Nikov, I., & Dhulster, P. (2019). Modeling and Optimization of Extraction and Energy Consumption during Ultrasound-Assisted Extraction of Antioxidant Polyphenols from Pomegranate Peels. *Environmental Progress and Sustainable Energy*, 38(5), 1–7. <https://doi.org/10.1002/ep.13148>
- Dong, Y., Hou, Q., Lei, J., Wolf, P. G., Ayansola, H., & Zhang, B. (2020). Quercetin Alleviates Intestinal Oxidative Damage Induced by H₂O₂ via Modulation of GSH: In Vitro Screening and in Vivo Evaluation in a Colitis Model of Mice. *ACS Omega*, 5(14), 8334–8346. <https://doi.org/10.1021/acsomega.0c00804>
- Du, L., & Ha, C. (2020). Epidemiology and Pathogenesis of Ulcerative Colitis. *Gastroenterology Clinics of North America*, 49(4), 643–654. <https://doi.org/10.1016/j.gtc.2020.07.005>
- Ferreira, S. L. C., Bruns, R. E., Ferreira, H. S., Matos, G. D., David, J. M., Brandão, G. C., da Silva, E. G. P., Portugal, L. A., dos Reis, P. S., Souza, A. S., & dos Santos, W. N. L. (2007). Box-Behnken design: An alternative for the optimization of analytical methods. *Analytica Chimica Acta*, 597(2), 179–186. <https://doi.org/10.1016/j.aca.2007.07.011>
- Ferreira, S. S., Silva, A. M., & Nunes, F. M. (2018). Citrus reticulata Blanco peels as a source of antioxidant and anti-proliferative phenolic compounds. *Industrial Crops and Products*, 111, 141–148. <https://doi.org/10.1016/j.indcrop.2017.10.009>

- Francescone, R., Hou, V., & Grivennikov, S. I. (2015). Cytokines, IBD, and colitis-associated cancer. *Inflammatory Bowel Diseases*, 21(2), 409–418. <https://doi.org/10.1097/MIB.0000000000000236>
- Friedrich, M., Pohin, M., & Powrie, F. (2019). Cytokine Networks in the Pathophysiology of Inflammatory Bowel Disease. In *Immunity* (Vol. 50, Issue 4, pp. 992–1006). Cell Press. <https://doi.org/10.1016/j.immuni.2019.03.017>
- Gajendran, M., Loganathan, P., Jimenez, G., Catinella, A. P., Ng, N., Umapathy, C., Ziade, N., & Hashash, J. G. (2019). A comprehensive review and update on ulcerative colitis. *Disease-a-Month*, 65(12), 100851. <https://doi.org/10.1016/j.disamonth.2019.02.004>
- Gao, S. Q., Huang, L. D., Dai, R. J., Chen, D. D., Hu, W. J., & Shan, Y. F. (2015). Neutrophil-lymphocyte ratio: A controversial marker in predicting Crohn's disease severity. *International Journal of Clinical and Experimental Pathology*, 8(11), 14779–14785.
- Garcia-Castello, E. M., Rodriguez-Lopez, A. D., Mayor, L., Ballesteros, R., Conidi, C., & Cassano, A. (2015). Optimization of conventional and ultrasound assisted extraction of flavonoids from grapefruit (*Citrus paradisi* L.) solid wastes. *LWT - Food Science and Technology*, 64(2), 1114–1122. <https://doi.org/10.1016/j.lwt.2015.07.024>
- Ghitecu, R. E., Volf, I., Carausu, C., Bühlmann, A. M., Gilca, I. A., & Popa, V. I. (2015). Optimization of ultrasound-assisted extraction of polyphenols from spruce wood bark. *Ultrasonics Sonochemistry*, 22, 535–541. <https://doi.org/10.1016/j.ultsonch.2014.07.013>
- Haya, S., Bentahar, F., & Trari, M. (2019). Optimization of polyphenols extraction from orange peel. *Journal of Food Measurement and Characterization*, 13(1), 614–621. <https://doi.org/10.1007/s11694-018-9974-2>
- He, W., Li, Y., Liu, M., Yu, H., Chen, Q., Chen, Y., Ruan, J., Ding, Z., Zhang, Y., & Wang, T. (2018). Citrus aurantium l. And its flavonoids regulate tnbs-induced inflammatory bowel disease through anti-inflammation and suppressing isolated jejunum contraction. *International Journal of Molecular Sciences*, 19(10). <https://doi.org/10.3390/ijms19103057>
- Hill, J. O., Wyatt, H. R., & Peters, J. C. (2012). Energy balance and obesity. *Circulation*, 126(1), 126–132. <https://doi.org/10.1097/00017285-197509000-00009>
- Hirano, T. (2021). IL-6 in inflammation, autoimmunity and cancer. *International Immunology*, 33(3), 127–148. <https://doi.org/10.1093/intimm/dxaa078>
- Hoffmann, M. H., & Griffiths, H. R. (2018). The dual role of Reactive Oxygen

Species in autoimmune and inflammatory diseases: evidence from preclinical models. In *Free Radical Biology and Medicine* (Vol. 125, pp. 62–71). Elsevier Inc. <https://doi.org/10.1016/j.freeradbiomed.2018.03.016>

Hosseini, H., Bolourian, S., Yaghoubi Hamgini, E., & Ghanuni Mahababadi, E. (2018). Optimization of heat- and ultrasound-assisted extraction of polyphenols from dried rosemary leaves using response surface methodology. *Journal of Food Processing and Preservation*, 42(11), 1–15. <https://doi.org/10.1111/jfpp.13778>

Hwang, S. J., Kim, Y. W., Park, Y., Lee, H. J., & Kim, K. W. (2014). Anti-inflammatory effects of chlorogenic acid in lipopolysaccharide- stimulated RAW 264.7 cells. *Inflammation Research*, 63(1), 81–90. <https://doi.org/10.1007/s00011-013-0674-4>

Jena, G., Trivedi, P. P., & Sandala, B. (2012). Oxidative stress in ulcerative colitis: An old concept but a new concern. *Free Radical Research*, 46(11), 1339–1345. <https://doi.org/10.3109/10715762.2012.717692>

Kaenkumchorn, T., & Wahbeh, G. (2020). Ulcerative Colitis: Making the Diagnosis. *Gastroenterology Clinics of North America*, 49(4), 655–669. <https://doi.org/10.1016/j.gtc.2020.07.001>

Kaneko, N., Kurata, M., Yamamoto, T., Morikawa, S., & Masumoto, J. (2019). The role of interleukin-1 in general pathology. *Inflammation and Regeneration*, 39(1), 1–16. <https://doi.org/10.1186/s41232-019-0101-5>

Kaur, S., Bansal, Y., Kumar, R., & Bansal, G. (2020). A panoramic review of IL-6: Structure, pathophysiological roles and inhibitors. *Bioorganic and Medicinal Chemistry*, 28(5), 115327. <https://doi.org/10.1016/j.bmc.2020.115327>

Keshavarz, B., & Rezaei, K. (2020). Microwave- and ultrasound-assisted extraction of phenolic and flavonoid compounds from konar (*Ziziphus spina-christi*) fruits. *International Food Research Journal*, 27(February), 47–55.

Khan, M. K., Abert-Vian, M., Fabiano-Tixier, A. S., Dangles, O., & Chemat, F. (2010). Ultrasound-assisted extraction of polyphenols (flavanone glycosides) from orange (*Citrus sinensis* L.) peel. *Food Chemistry*, 119(2), 851–858. <https://doi.org/10.1016/j.foodchem.2009.08.046>

Kim, D. S., & Lim, S. Bin. (2020). Extraction of flavanones from immature Citrus unshiu pomace: process optimization and antioxidant evaluation. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-76965-8>

Koolaji, N., Shammugasamy, B., Schindeler, A., Dong, Q., Dehghani, F., & Valtchev, P. (2020). Citrus Peel Flavonoids as Potential Cancer Prevention

Agents. In *Current Developments in Nutrition* (Vol. 4, Issue 5). Oxford University Press. <https://doi.org/10.1093/cdn/nzaa025>

- Kumar, K., Srivastav, S., & Sharanagat, V. S. (2021). Ultrasound assisted extraction (UAE) of bioactive compounds from fruit and vegetable processing by-products: A review. *Ultrasonics Sonochemistry*, 70(September 2020), 105325. <https://doi.org/10.1016/j.ultsonch.2020.105325>
- Lee, S. H., Lee, J. A., Shin, M.-R., Park, H.-J., & Roh, S.-S. (2022). Citrus unshiu Peel Attenuates Dextran Sulfate Sodium-Induced Ulcerative Colitis in Mice due to Modulation of the PI3K/Akt Signaling Pathway and MAPK and NF- κ B. *Evidence-Based Complementary and Alternative Medicine*, 2022, 1–13. <https://doi.org/10.1155/2022/4041402>
- Leppkes, M., & Neurath, M. F. (2020). Cytokines in inflammatory bowel diseases – Update 2020. In *Pharmacological Research* (Vol. 158). Academic Press. <https://doi.org/10.1016/j.phrs.2020.104835>
- Li, Y., Yao, J., Han, C., Yang, J., Chaudhry, M. T., Wang, S., Liu, H., & Yin, Y. (2016). Quercetin, inflammation and immunity. *Nutrients*, 8(3), 1–14. <https://doi.org/10.3390/nu8030167>
- Liew, S. S., Ho, W. Y., Yeap, S. K., & Bin Sharifudin, S. A. (2018). Phytochemical composition and in vitro antioxidant activities of Citrus sinensis peel extracts. *PeerJ*, 2018(8). <https://doi.org/10.7717/peerj.5331>
- Lin, Y. S., Li, S., Ho, C. T., & Lo, C. Y. (2012). Simultaneous analysis of six polymethoxyflavones and six 5-hydroxy-polymethoxyflavones by high performance liquid chromatography combined with linear ion trap mass spectrometry. *Journal of Agricultural and Food Chemistry*, 60(49), 12082–12087. <https://doi.org/10.1021/jf303896q>
- Liu, S., Adewole, D., Yu, L., Sid, V., Wang, B., Karmin, O., & Yang, C. (2019). Rutin attenuates inflammatory responses induced by lipopolysaccharide in an in vitro mouse muscle cell (C2C12) model. *Poultry Science*, 98(7), 2756–2764. <https://doi.org/10.3382/ps/pez037>
- Loizzo, M. R., Tundis, R., Bonesi, M., Menichini, F., De Luca, D., Colica, C., & Menichini, F. (2012). Evaluation of Citrus aurantifolia peel and leaves extracts for their chemical composition, antioxidant and anti-cholinesterase activities. *Journal of the Science of Food and Agriculture*, 92(15), 2960–2967. <https://doi.org/10.1002/jsfa.5708>
- Mai, I., Sasaki, M., Takaoka, A., Kurihara, M., Iwakawa, H., Bamba, S., Ban, H., & Andoh, A. (2015). Changes in energy metabolism after induction therapy in patients with severe or moderate ulcerative colitis. *Journal of Clinical Biochemistry and Nutrition*, 56(3), 215–219. <https://doi.org/10.3164/jcfn.14->

- Makni, M., Jemai, R., Kriaa, W., Chtourou, Y., & Fetoui, H. (2018). Citrus limon from Tunisia: Phytochemical and Physicochemical Properties and Biological Activities. *BioMed Research International*, 2018. <https://doi.org/10.1155/2018/6251546>
- Martini, E., Krug, S. M., Siegmund, B., Neurath, M. F., & Becker, C. (2017). Mend Your Fences: The Epithelial Barrier and its Relationship With Mucosal Immunity in Inflammatory Bowel Disease. *Cmgh*, 4(1), 33–46. <https://doi.org/10.1016/j.jcmgh.2017.03.007>
- Mayangsari, Y., Sugimachi, N., Xu, W., Mano, C., Tanaka, Y., Ueda, O., Sakuta, T., Suzuki, Y., Yamamoto, Y., & Suzuki, T. (2021). 3,5,7,3',4'-Pentamethoxyflavone Enhances the Barrier Function through Transcriptional Regulation of the Tight Junction in Human Intestinal Caco-2 Cells. *Journal of Agricultural and Food Chemistry*, 69(35), 10174–10183. <https://doi.org/10.1021/acs.jafc.1c04295>
- Mayangsari, Y., & Suzuki, T. (2018). Resveratrol Ameliorates Intestinal Barrier Defects and Inflammation in Colitic Mice and Intestinal Cells. *Journal of Agricultural and Food Chemistry*, 66(48), 12666–12674. <https://doi.org/10.1021/acs.jafc.8b04138>
- McCole, D. F. (2014). IBD candidate genes and intestinal barrier regulation. In *Inflammatory Bowel Diseases* (Vol. 20, Issue 10, pp. 1829–1849). Lippincott Williams and Wilkins. <https://doi.org/10.1097/MIB.0000000000000090>
- Merigo, F., Brandolese, A., Facchin, S., Boschi, F., Di Chio, M., Savarino, E., D'Incà, R., Sturniolo, G. C., & Sbarbati, A. (2021). Immunolocalization of leptin and leptin receptor in colorectal mucosa of ulcerative colitis, Crohn's disease and control subjects with no inflammatory bowel disease. *Cell and Tissue Research*, 383(3), 1103–1122. <https://doi.org/10.1007/s00441-020-03297-4>
- Mi, H., Liu, F. Bin, Li, H. W., Hou, J. T., & Li, P. W. (2017). Anti-inflammatory effect of Chang-An- Shuan on TNBS-induced experimental colitis in rats. *BMC Complementary and Alternative Medicine*, 17(1), 1–8. <https://doi.org/10.1186/s12906-017-1794-0>
- Mojerlou, Z., & Elhamirad, A. (2018). Optimization of ultrasound-assisted extraction (UAE) of phenolic compounds from olive cake. *Journal of Food Science and Technology*, 55(3), 977–984. <https://doi.org/10.1007/s13197-017-3005-x>
- Musumeci, L., Maugeri, A., Cirmi, S., Lombardo, G. E., Russo, C., Gangemi, S., Calapai, G., & Navarra, M. (2020). Citrus fruits and their flavonoids in

- inflammatory bowel disease: an overview. In *Natural Product Research* (Vol. 34, Issue 1, pp. 122–136). Taylor and Francis Ltd. <https://doi.org/10.1080/14786419.2019.1601196>
- Nakase, H., Sato, N., Mizuno, N., & Ikawa, Y. (2022). The influence of cytokines on the complex pathology of ulcerative colitis. *Autoimmunity Reviews*, 21(3), 103017. <https://doi.org/10.1016/j.autrev.2021.103017>
- Nayak, B., Dahmoune, F., Moussi, K., Remini, H., Dairi, S., Aoun, O., & Khodir, M. (2015). Comparison of microwave, ultrasound and accelerated-assisted solvent extraction for recovery of polyphenols from Citrus sinensis peels. *Food Chemistry*, 187, 507–516. <https://doi.org/10.1016/j.foodchem.2015.04.081>
- Nishad, J., Saha, S., Dubey, A. K., Varghese, E., & Kaur, C. (2019). Optimization and comparison of non-conventional extraction technologies for Citrus paradisi L. peels: a valorization approach. *Journal of Food Science and Technology*, 56(3), 1221–1233. <https://doi.org/10.1007/s13197-019-03585-0>
- Nishad, J., Saha, S., & Kaur, C. (2019). Enzyme- and ultrasound-assisted extractions of polyphenols from Citrus sinensis (cv. Malta) peel: A comparative study. *Journal of Food Processing and Preservation*, 43(8), 1–13. <https://doi.org/10.1111/jfpp.14046>
- Oh, S. Y., Cho, K. A., Kang, J. L., Kim, K. H., & Woo, S. Y. (2014). Comparison of experimental mouse models of inflammatory bowel disease. *International Journal of Molecular Medicine*, 33(2), 333–340. <https://doi.org/10.3892/ijmm.2013.1569>
- Omoba, O. S., Obafaye, R. O., Salawu, S. O., Boligon, A. A., & Athayde, M. L. (2015). HPLC-DAD phenolic characterization and antioxidant activities of ripe and unripe sweet orange peels. *Antioxidants*, 4(3), 498–512. <https://doi.org/10.3390/antiox4030498>
- Pandurangan, A. K., Ismail, S., Saadatdoust, Z., & Esa, N. M. (2015). Allicin Alleviates Dextran Sodium Sulfate- (DSS-) Induced Ulcerative Colitis in BALB/c Mice. *Oxidative Medicine and Cellular Longevity*, 2015. <https://doi.org/10.1155/2015/605208>
- Parasuraman, S., Raveendran, R., & Kesavan, R. (2010). Blood sample collection in small laboratory animals. *Journal of Pharmacology and Pharmacotherapeutics*, 1(2), 87–93. <https://doi.org/10.4103/0976-500X.72350>
- Peng, H. L., Huang, W. C., Cheng, S. C., & Liou, C. J. (2018). Fisetin inhibits the generation of inflammatory mediators in interleukin-1 β -induced human lung epithelial cells by suppressing the NF- κ B and ERK1/2 pathways. *International*

Immunopharmacology, 60, 202–210.
<https://doi.org/10.1016/j.intimp.2018.05.004>

Prakash Maran, J., Manikandan, S., Vigna Nivetha, C., & Dinesh, R. (2017). Ultrasound assisted extraction of bioactive compounds from *Nephelium lappaceum* L. fruit peel using central composite face centered response surface design. *Arabian Journal of Chemistry*, 10, S1145–S1157.
<https://doi.org/10.1016/j.arabjc.2013.02.007>

Ramos, G. P., & Papadakis, K. A. (2019). Mechanisms of Disease: Inflammatory Bowel Diseases. In *Mayo Clinic Proceedings* (Vol. 94, Issue 1, pp. 155–165). Elsevier Ltd. <https://doi.org/10.1016/j.mayocp.2018.09.013>

Rezaei, N. (2022). Encyclopedia of Infection and Immunity. In *Encyclopedia of Infection and Immunity*. Elsevier Inc. <https://doi.org/10.1016/c2018-1-04055-x>

Rodsamran, P., & Sothornvit, R. (2019). Extraction of phenolic compounds from lime peel waste using ultrasonic-assisted and microwave-assisted extractions. *Food Bioscience*, 28(March 2018), 66–73.
<https://doi.org/10.1016/j.fbio.2019.01.017>

Rogler, G., & Vavricka, S. (2015). Anemia in inflammatory bowel disease: An under-estimated problem? *Frontiers in Medicine*, 2(JAN), 1–8.
<https://doi.org/10.3389/fmed.2014.00058>

Safdar, M. N., Kausar, T., Jabbar, S., Mumtaz, A., Ahad, K., & Saddozai, A. A. (2017). Extraction and quantification of polyphenols from kinnow (*Citrus reticulata* L.) peel using ultrasound and maceration techniques. *Journal of Food and Drug Analysis*, 25(3), 488–500.
<https://doi.org/10.1016/j.jfda.2016.07.010>

Şahin, S., & Şamli, R. (2013). Optimization of olive leaf extract obtained by ultrasound-assisted extraction with response surface methodology. *Ultrasonics Sonochemistry*, 20(1), 595–602.
<https://doi.org/10.1016/j.ultsonch.2012.07.029>

Saifullah, M., McCullum, R., McCluskey, A., & Vuong, Q. (2020). Comparison of conventional extraction technique with ultrasound assisted extraction on recovery of phenolic compounds from lemon scented tea tree (*Leptospermum petersonii*) leaves. *Heliyon*, 6(4), e03666.
<https://doi.org/10.1016/j.heliyon.2020.e03666>

Saini, A., Panesar, P. S., & Bera, M. B. (2021). Valuation of *Citrus reticulata* (kinnow) peel for the extraction of lutein using ultrasonication technique. *Biomass Conversion and Biorefinery*, 11(5), 2157–2165.
<https://doi.org/10.1007/s13399-020-00605-4>

- Salaritabar, A., Darvishi, B., HadjiakhoonDi, F., Manayi, A., Sureda, A., Nabavi, S. F., Fitzpatrick, L. R., Nabavi, S. M., & Bishayee, A. (2017). Therapeutic potential of flavonoids in inflammatory bowel Disease: A comprehensive review. In *World Journal of Gastroenterology* (Vol. 23, Issue 28, pp. 5097–5114). Baishideng Publishing Group Co. <https://doi.org/10.3748/wjg.v23.i28.5097>
- Sasaki, M., Johtatsu, T., Kurihara, M., Iwakawa, H., Tanaka, T., Bamba, S., Tsujikawa, T., Fujiyama, Y., & Andoh, A. (2010). Energy expenditure in Japanese patients with severe or moderate ulcerative colitis. *Journal of Clinical Biochemistry and Nutrition*, 47(1), 32–36. <https://doi.org/10.3164/jcbrn.10-07>
- Savic, I. M., & Savic Gajic, I. M. (2020). Optimization of ultrasound-assisted extraction of polyphenols from wheatgrass (*Triticum aestivum* L.). *Journal of Food Science and Technology*, 57(8), 2809–2818. <https://doi.org/10.1007/s13197-020-04312-w>
- Segal, A. W. (2018). The role of neutrophils in the pathogenesis of Crohn's disease. *European Journal of Clinical Investigation*, 48, 0–1. <https://doi.org/10.1111/eci.12983>
- Shen, M., Zhang, B., Wang, M., Meng, L., & Lv, B. (2020). Mica Can Alleviate TNBS-Induced Colitis in Mice by Reducing Angiotensin II and IL-17A and Increasing Angiotensin-Converting Enzyme 2, Angiotensin 1-7, and IL-10. *Mediators of Inflammation*, 2020(Ang II). <https://doi.org/10.1155/2020/3070345>
- Silva, I., Solas, J., Pinto, R., & Mateus, V. (2022). Chronic Experimental Model of TNBS-Induced Colitis to Study Inflammatory Bowel Disease. *International Journal of Molecular Sciences*, 23(9). <https://doi.org/10.3390/ijms23094739>
- Singh, B., Singh, J. P., Kaur, A., & Singh, N. (2020). Phenolic composition, antioxidant potential and health benefits of citrus peel. In *Food Research International* (Vol. 132). Elsevier Ltd. <https://doi.org/10.1016/j.foodres.2020.109114>
- Soroush, D. R., Solaimanimehr, S., Azizkhani, M., Kenari, R. E., Dehghan, B., Mohammadi, G., & Sadeghi, E. (2021). Optimization of microwave-assisted solvent extraction of hemp (*Cannabis sativa* L.) seed oil using RSM: evaluation of oil quality. *Journal of Food Measurement and Characterization*, 15(6), 5191–5202. <https://doi.org/10.1007/s11694-021-01087-2>
- Soufli, I., Toumi, R., Rafa, H., & Touil-Boukoffa, C. (2016). Cytokines and Nitric Oxide in Immunopathogenesis of IBD and Potential Therapeutic Approaches. In *New Insights into Inflammatory Bowel Disease*. InTech. <https://doi.org/10.5772/65001>

- Tao, Y., Zhang, Z., & Sun, D. W. (2014). Kinetic modeling of ultrasound-assisted extraction of phenolic compounds from grape marc: Influence of acoustic energy density and temperature. *Ultrasonics Sonochemistry*, 21(4), 1461–1469. <https://doi.org/10.1016/j.ultsonch.2014.01.029>
- Tatiya-Aphiradee, N., Chatuphonprasert, W., & Jarukamjorn, K. (2019). Immune response and inflammatory pathway of ulcerative colitis. In *Journal of Basic and Clinical Physiology and Pharmacology* (Vol. 30, Issue 1, pp. 1–10). De Gruyter. <https://doi.org/10.1515/jbcpp-2018-0036>
- Tekgül, Y., & Baysal, T. (2019). Optimization of process conditions for vacuum microwave drying of lemon peel by response surface methodology: Quality characteristics and volatile compounds. *Journal of Food Process Engineering*, 42(5). <https://doi.org/10.1111/jfpe.13080>
- Tiaka, E. K., Manolakis, A. C., Kapsoritakis, A. N., & Potamianos, S. P. (2011). Unraveling the link between leptin, ghrelin and different types of colitis. *Annals of Gastroenterology*, 24(1), 20–28.
- Tian, T., Wang, Z., & Zhang, J. (2017). Pathomechanisms of Oxidative Stress in Inflammatory Bowel Disease and Potential Antioxidant Therapies. In *Oxidative Medicine and Cellular Longevity* (Vol. 2017). Hindawi Limited. <https://doi.org/10.1155/2017/4535194>
- Trejo-Vazquez, F., Garza-Veloz, I., Villela-Ramirez, G. A., Ortiz-Castro, Y., Mauricio-Saucedo, P., Cardenas-Vargas, E., Diaz-Baez, M., Cid-Baez, M. A., Castañeda-Miranda, R., Ortiz-Rodriguez, J. M., Solis-Sanchez, L. O., & Martinez-Fierro, M. L. (2018). Positive association between leptin serum levels and disease activity on endoscopy in inflammatory bowel disease: A case-control study. *Experimental and Therapeutic Medicine*, 15(4), 3336–3344. <https://doi.org/10.3892/etm.2018.5835>
- Valatas, V., Bamias, G., & Kolios, G. (2015). Experimental colitis models: Insights into the pathogenesis of inflammatory bowel disease and translational issues. *European Journal of Pharmacology*, 759, 253–264. <https://doi.org/10.1016/j.ejphar.2015.03.017>
- Vera Candiotti, L., De Zan, M. M., Cámara, M. S., & Goicoechea, H. C. (2014). Experimental design and multiple response optimization. Using the desirability function in analytical methods development. *Talanta*, 124, 123–138. <https://doi.org/10.1016/j.talanta.2014.01.034>
- Wan, F., Cai, X., Wang, M., Chen, L., Zhong, R., Liu, L., Yi, B., Hou, F., & Zhang, H. (2021). Chlorogenic acid supplementation alleviates dextran sulfate sodium (DSS)-induced colitis via inhibiting inflammatory responses and oxidative stress, improving gut barrier integrity and Nrf-2/HO-1 pathway. *Journal of Functional Foods*, 87, 104808. <https://doi.org/10.1016/j.jff.2021.104808>

- Wang, L., Wang, J., Fang, L., Zheng, Z., Zhi, D., Wang, S., Li, S., Ho, C. T., & Zhao, H. (2014). Anticancer Activities of Citrus Peel Polymethoxyflavones Related to Angiogenesis and Others. In *BioMed Research International* (Vol. 2014). Hindawi Publishing Corporation. <https://doi.org/10.1155/2014/453972>
- Wang, X., Li, S., Wei, C.-C., Huang, J., Pan, M.-H., Shahidi, F., & Ho, C.-T. (2018). Anti-inflammatory effects of polymethoxyflavones from citrus peels: a review. *Journal of Food Bioactives*, 3, 76–86. <https://doi.org/10.31665/jfb.2018.3150>
- Wang, Y., Chen, Y., Zhang, H., Chen, J., Cao, J., Chen, Q., Li, X., & Sun, C. (2020). Polymethoxyflavones from citrus inhibited gastric cancer cell proliferation through inducing apoptosis by upregulating RAR β , both in vitro and in vivo. *Food and Chemical Toxicology*, 146. <https://doi.org/10.1016/j.fct.2020.111811>
- Weiss, C. R., Guan, Q., Ma, Y., Qing, G., Bernstein, C. N., Warrington, R. J., & Peng, Z. (2015). The Potential Protective Role of Caveolin-1 in Intestinal Inflammation in TNBS-Induced Murine Colitis. *PLoS ONE*, 10(3). <https://doi.org/10.1371/journal.pone.0119004>
- Yu, H., Lin, L., Zhang, Z., Zhang, H., & Hu, H. (2020). Targeting NF- κ B pathway for the therapy of diseases: mechanism and clinical study. *Signal Transduction and Targeted Therapy*, 5(1). <https://doi.org/10.1038/s41392-020-00312-6>
- Zahorecc, R. (2021). Neutrophil-to-lymphocyte ratio, past, present and future perspectives. *Bratislava Medical Journal*, 122(7), 474–488. <https://doi.org/10.4149/BLL>
- Zheng, Y. Z., Deng, G., Liang, Q., Chen, D. F., Guo, R., & Lai, R. C. (2017). Antioxidant activity of quercetin and its glucosides from propolis: A theoretical study. *Scientific Reports*, 7(1), 1–11. <https://doi.org/10.1038/s41598-017-08024-8>