

REFERENCES

- Chancharoonpong, C., Hsieh, P.-C., & Sheu, S.-C. (2012). Enzyme Production and Growth of *Aspergillus oryzae* S. on Soybean *Koji* Fermentation. *APCBEE Procedia*, 2, 57–61. <https://doi.org/10.1016/j.apcbee.2012.06.011>
- Citraresmi, A. D. P., & Rahmawati, F. (2020). Risk measurement of supply chain for soy sauce product. *IOP Conference Series: Earth and Environmental Science*, 475, 012058. <https://doi.org/10.1088/1755-1315/475/1/012058>
- Chisti, Y. (2014). FERMENTATION (INDUSTRIAL) | Basic Considerations. *Encyclopedia of Food Microbiology*, 751–761. <https://doi.org/10.1016/b978-0-12-384730-0.00106-3>
- Devanthi, P. V. P., Linforth, R., Onyeaka, H., & Gkatzionis, K. (2018). Effects of co-inoculation and sequential inoculation of *Tetragenococcus halophilus* and *Zygosaccharomyces rouxii* on soy sauce fermentation. *Food Chemistry*, 240, 1–8. <https://doi.org/10.1016/j.foodchem.2017.07.094>
- Devanthi, P. V. P., & Gkatzionis, K. (2019). Soy sauce fermentation: Microorganisms, aroma formation, and process modification. *Food Research International*, 120, 364–374. <https://doi.org/10.1016/j.foodres.2019.03.010>
- Diez-Simon, C., Eichelsheim, C., Mumm, R., & Hall, R. (2020). Chemical and Sensory Characteristics of Soy Sauce: A Review. *Journal Of Agricultural And Food Chemistry*, 68(42), 11612–11630. doi: 10.1021/acs.jafc.0c04274
- Feng, Y., Cui, C., Zhao, H., Gao, X., Zhao, M., & Sun, W. (2012). Effect of *koji* fermentation on generation of volatile compounds in soy sauce production. *International Journal of Food Science & Technology*, 48(3), 609–619. <https://doi.org/10.1111/ijfs.12006>
- Gao, Xianli & Zhao, Haifeng & Feng, Yunzi & Zhao, Mouming. (2010). A comparative study on physicochemical properties of Chinese-type soy sauces prepared using pure *koji* and mixed *kojis*. *African Journal of Biotechnology*. 9. 6740-6747.

Goh, K. M., Lai, O. M., Abas, F., & Tan, C. P. (2017). Effects of sonication on the extraction of free-amino acids from *moromi* and application to the laboratory scale rapid fermentation of soy sauce. *Food Chemistry*, 215, 200–208. <https://doi.org/10.1016/j.foodchem.2016.07.146>

Harada, R., Yuzuki, M., Ito, K., Shiga, K., Bamba, T., & Fukusaki, E. (2018). Microbe participation in aroma production during soy sauce fermentation. *Journal Of Bioscience And Bioengineering*, 125(6), 688-694. doi: 10.1016/j.jbiosc.2017.12.004

Hill, A., & Stewart, G. (2019). Free Amino Nitrogen in Brewing. *Fermentation*, 5(1), 22. <https://doi.org/10.3390/fermentation5010022>

Hui, Y. (2003). *Handbook of vegetables and vegetable processing*.

Hoang, N. X., Ferng, S., Ting, C.-H., Lu, Y.-C., Yeh, Y.-F., Lai, Y.-R., Yih-Yuan Chiou, R., Hwang, J.-Y., & Hsu, C.-K. (2018). Effect of initial 5 days fermentation under low salt condition on the quality of soy sauce. *LWT*, 92, 234–241. <https://doi.org/10.1016/j.lwt.2018.02.043>

Hoffmann, T., SchützA., Brosius, M., VölkerA., VölkerU., & Bremer, E. (2002). High-Salinity-Induced Iron Limitation in *Bacillus subtilis*. *Journal of Bacteriology*, 184(3), 718–727. <https://doi.org/10.1128/jb.184.3.718-727.2002>

Jiang, X., Xu, Y., Ye, J., Yang, Z., Huang, S., Liu, Y., & Zhou, S. (2019). Isolation, identification and application on soy sauce fermentation flavor bacteria of CS1.03. *Journal of Food Science and Technology*, 56(4), 2016–2026. <https://doi.org/10.1007/s13197-019-03678-w>

Liang, R., Huang, J., Wu, X., Xu, Y., Fan, J., Wu, C., Jin, Y., & Zhou, R. (2019). Characterizing the metabolites and the microbial communities of the soy sauce mash affected by temperature and hydrostatic pressure. *Food Research International*, 123, 801–808. <https://doi.org/10.1016/j.foodres.2019.06.002>

Liang, R., Huang, J., Wu, X., Fan, J., Xu, Y., Wu, C., Jin, Y., & Zhou, R. (2019). Effect of raw material and starters on the metabolite constituents and microbial community diversity of fermented

soy sauce. *Journal of the Science of Food and Agriculture*, 99(13), 5687–5695.
<https://doi.org/10.1002/jsfa.9830>

Liu, J., Li, D., Hu, Y., Wang, C., Gao, B., & Xu, N. (2015). Effect of a halophilic aromatic yeast together with *Aspergillus oryzae* in *koji* making on the volatile compounds and quality of soy sauce *moromi*. *International Journal of Food Science & Technology*, 50(6), 1352–1358.

<https://doi.org/10.1111/ijfs.12789>

Luh, B. S. (1995). Industrial production of soy sauce. *Journal of Industrial Microbiology*, 14(6), 467–471. <https://doi.org/10.1007/bf01573959>

Miller, G. L. (1959). Use of Dinitrosalicylic Acid Reagent for Determination of Reducing Sugar. *Analytical Chemistry*, 31(3), 426–428. <https://doi.org/10.1021/ac60147a030>

Miyagi, A., Suzuki, T., Nabetani, H., & Nakajima, M. (2013). Color control of Japanese soy sauce (shoyu) using membrane technology. *Food and Bioprocess Processing*, 91(4), 507–514.

<https://doi.org/10.1016/j.fbp.2013.05.002>

Moënne-Loccoz, Y., Mavingui, P., Combes, C., Normand, P., & Steinberg, C. (2014). Microorganisms and Biotic Interactions. *Environmental Microbiology: Fundamentals and Applications*, 395–444. https://doi.org/10.1007/978-94-017-9118-2_11

Muramatsu, S., Sano, Y., & Uzuka, Y. (1993). Rapid Fermentation of Soy Sauce. *ACS Symposium Series*, 200–210. <https://doi.org/10.1021/bk-1993-0528.ch016>

Ray, R. C., & Montet, D. (2017). *FERMENTED FOODS, PART II : technological interventions*. Crc Press.

Sasaki, M., & Nunomura, N. (2003). *FERMENTED FOODS | Soy (Soya) Sauce*. *Encyclopedia of Food Sciences and Nutrition*, 2359–2369. <https://doi.org/10.1016/b0-12-227055-x/00455-7>

Segawa, D., Nakamura, K., Kuramitsu, R., Muramatsu, S., Sano, Y., Uzuka, Y., Tamura, M., & Okai, H. (1995). Preparation of Low Sodium Chloride Containing Soy Sauce Using Amino Acid Based Saltiness Enhancers. *Bioscience, Biotechnology, and Biochemistry*, 59(1), 35–39. <https://doi.org/10.1271/bbb.59.35>

Shurtleff, W., & Aoyagi, A. (2012). *History of soy sauce (160 CE to 2012)*. Soyinfo Center.

Socol, C. R., Costa, E. S. F. da, Letti, L. A. J., Karp, S. G., Woiciechowski, A. L., & Vandenberghe, L. P. de S. (2017). Recent developments and innovations in solid state fermentation. *Biotechnology Research and Innovation*, 1(1), 52–71. <https://doi.org/10.1016/j.biori.2017.01.002>

Steinhaus, P., & Schieberle, P. (2007). Characterization of the Key Aroma Compounds in Soy Sauce Using Approaches of Molecular Sensory Science. *Journal of Agricultural and Food Chemistry*, 55(15), 6262–6269. <https://doi.org/10.1021/jf0709092>

Su, N.-W., Wang, M.-L., Kwok, K.-F., & Lee, M.-H. (2005). Effects of temperature and sodium chloride concentration on the activities of proteases and amylases in soy sauce *koji*. *Journal of Agricultural and Food Chemistry*, 53(5), 1521–1525. <https://doi.org/10.1021/jf0486390>

Sulaiman, A. Z., Ajit, A., Yunus, R. M., & Chisti, Y. (2011). Ultrasound-assisted fermentation enhances bioethanol productivity. *Biochemical Engineering Journal*, 54(3), 141–150. <https://doi.org/10.1016/j.bej.2011.01.006>

Sulaiman, J., Gan, H. M., Yin, W.-F., & Chan, K.-G. (2014). Microbial succession and the functional potential during the fermentation of Chinese soy sauce brine. *Frontiers in Microbiology*, 5. <https://doi.org/10.3389/fmicb.2014.00556>

Syifaa, A., Jinap, S., Sanny, M., & Khatib, A. (2016). Chemical Profiling of Different Types of Soy Sauce and the Relationship with its Sensory Attributes. *Journal Of Food Quality*, 39(6), 714-725. doi: 10.1111/jfq.12240

Ta, Y. W., Mun, S. K., Lee, F. S., & Lithnes, K. P. (2010). Effect of temperature on *moromi* fermentation of soy sauce with intermittent aeration. *African Journal of Biotechnology*, 9(5), 702–706. <https://doi.org/10.5897/ajb09.1548>

Trunk, T., S. Khalil, H., & C. Leo, J. (2018). Bacterial autoaggregation. *AIMS Microbiology*, 4(1), 140–164. <https://doi.org/10.3934/microbiol.2018.1.140>

Tyl, C., & Sadler, G. D. (2017). pH and Titratable Acidity. *Food Science Text Series*, 389–406. https://doi.org/10.1007/978-3-319-45776-5_22

VISSANGUAN, W., BENJAKUL, S., POTACHAREON, W., PANYA, A., & RIEBROY, S. (2005). ACCELERATED PROTEOLYSIS OF SOY PROTEINS DURING FERMENTATION OF THUA-NAO INOCULATED WITH BACILLUS SUBTILIS. *Journal of Food Biochemistry*, 29(4), 349–366. <https://doi.org/10.1111/j.1745-4514.2005.00012.x>

Xuan Hoang, N., Ting, C.-H., & Hsu, C.-K. (2020). Optimization of Protease and Amylase Activities Derived from Soy Sauce *Koji*. *Journal of Food Science and Nutrition Research*, 03(03). <https://doi.org/10.26502/jfsnr.2642-11000046>

White, S., McIntyre, M., Berry, D. R., & McNeil, B. (2002). The Autolysis of Industrial Filamentous Fungi. *Critical Reviews in Biotechnology*, 22(1), 1–14. <https://doi.org/10.1080/07388550290789432>

Winters, A. L., Lloyd, J. D., Jones, R., & Merry, R. J. (2002). Evaluation of a rapid method for estimating free amino acids in silages. *Animal Feed Science and Technology*, 99(1-4), 177–187. [https://doi.org/10.1016/s0377-8401\(02\)00112-8](https://doi.org/10.1016/s0377-8401(02)00112-8)

Yang, Y., Deng, Y., Jin, Y., Liu, Y., Xia, B., & Sun, Q. (2017). Dynamics of microbial community during the extremely long-term fermentation process of a traditional soy sauce. *Journal of the Science of Food and Agriculture*, 97(10), 3220–3227. <https://doi.org/10.1002/jsfa.8169>

Ye, M., Liu, X., & Zhao, L. (2013). Production of a Novel Salt-tolerant L-glutaminase from *Bacillus amyloliquefaciens* Using Agro-industrial Residues and its Application in Chinese Soy Sauce Fermentation. *Biotechnology(Faisalabad)*, 12(1), 25–35. <https://doi.org/10.3923/biotech.2013.25.35>

Yue, X., Li, M., Liu, Y., Zhang, X., & Zheng, Y. (2021). Microbial diversity and function of soybean paste in East Asia: what we know and what we don't. *Current Opinion In Food Science*, 37, 145-152. doi: 10.1016/j.cofs.2020.10.012

Zhang, J., Du, G., Chen, J., & Fang, F. (2016). Characterization of a *Bacillus amyloliquefaciens* strain for reduction of citrulline accumulation during soy sauce fermentation. *Biotechnology Letters*, 38(10), 1723–1731. <https://doi.org/10.1007/s10529-016-2147-7>

Zhang, Y., Tao, W., 2009. Flavor and taste compounds analysis in Chinese solid fermented soy sauce. *African Journal of Biotechnology* 8, 673e681.

Zhou, W., Sun-Waterhouse, D., Xiong, J., Cui, C., Wang, W., & Dong, K. (2019). Desired soy sauce characteristics and autolysis of *Aspergillus oryzae* induced by low temperature conditions during initial *moromi* fermentation. *Journal of Food Science and Technology*, 56(6), 2888–2898.
<https://doi.org/10.1007/s13197-019-03742-5>