



TAL 797 – Seminário

20 de Setembro de 2023

WHEY AND ITS TECHNOLOGICAL APPLICATION IN THE FOOD INDUSTRY

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Whey is a byproduct of cheese production and has a composition rich in proteins, lactose, vitamins, and minerals. Traditionally considered a waste product, it is now recognized as a valuable resource for various applications. Its proteins are used in dairy products, sports nutrition, dietary supplements, and even in processed foods, where they act as texture agents and stabilizers. These proteins possess techno-functional properties such as solubility, emulsification, and gel formation, making them ideal for various applications in the food industry. Several emerging technologies, such as ohmic heating, have been applied to whey processing. These technologies enable the production of higher-value products and contribute to improving the functional properties of whey proteins. The future of whey utilization is promising. With the increasing demand for healthy and functional foods, whey proteins will continue to play a significant role in the food industry. Furthermore, research into innovative processing technologies has opened new opportunities to maximize the use of this valuable resource, reduce waste, and enhance sustainability in food production.

Referências bibliográficas:

CAPPATO, L. P., FERREIRA, M. V. S., GUIMARAES, J. T., PORTELA, J. B., COSTA, A. L. R., FREITAS, M. Q., CUNHA, R. L., OLIVEIRA, C. A. F., MERCALI, G. D., MARZACK, L. D. F., & CRUZ, A. G. Ohmic heating in dairy processing: Relevant aspects for safety and quality. **Trends in Food Science & Technology**, v. 62, p. 104–112, 2017

LIZARRAGA, M. S. DE PIANTE VICIN, D.; GONZÁLEZ, R., RUBIOLO, A., SANTIAGO, L.G. Rheological behavior of whey protein concentrate and λ -carrageenan aqueous mixtures. **Food Hydrocolloid**, v. 20, p. 740-748, 2006.

MENDOZA, D.R.; KOSMERL, E.; KRENTS, A.; ZHANG, L.; BADIGER, S.; CRUZADO, G. M.; APAZA, A. M.; GIUSTI, M.; FLORES, R.J.; CANO, I.G. invited review: Acid whey trends and health benefits. **Journal of Dairy Science**, v. 104, n. 2, p. 1262-1275, 2021.

MERKEL, A.; VOROPAEVA, D.; ONDRUSEK, M. The impact of integrated nanofiltration and electro-dialytic processes on the chemical composition of sweet and acid whey streams. **Journal of Food Engineering**, v. 298, p. 110500, 2021.

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