
Recent Publications

- Devnani, B., Ong, L., Kentish, S. & Gras, S. L. (2021). Structure and functionality of almond proteins as a function of pH. *Food Structure*, 30 pp. 100229-100229. doi:10.1016/j.foostr.2021.100229
- Wilms, P., Daffner, K., Kern, C., Gras, S., Schutyser, M. & Kohlus, R. (2021). Formulation engineering of food systems for 3D-printing applications-A review. *Food Research International*, 148 pp. 21-. doi:10.1016/j.foodres.2021.110585
- Vaskoska, R., Ha, M., Ong, L., Chen, G., White, J., Gras, S. & Warner, R. (2021). Myosin sensitivity to thermal denaturation explains differences in water loss and shrinkage during cooking in muscles of distinct fibre types. *Meat Science*, 179 pp. 15-. doi:10.1016/j.meatsci.2021.108521
- Dokouhaki, M., Hung, A., Kasapis, S. & Gras, S. L. (2021). Hydrophobins and chaplins: Novel bio-surfactants for food dispersions a review. *Trends in Food Science & Technology*, 111 pp. 378-387. doi:10.1016/j.tifs.2021.03.001
- Wu, Y., Li, W., Martin, G. J. & Ashokkumar, M. (2021). Mechanism of low-frequency and high-frequency ultrasound-induced inactivation of soy trypsin inhibitors. *Food Chemistry*, 360 pp. 11-. doi:10.1016/j.foodchem.2021.130057
- Xu, X., Kentish, S. E. & Martin, G. J. (2021). Direct Air Capture of CO₂ by Microalgae with Buoyant Beads Encapsulating Carbonic Anhydrase. *ACS Sustainable Chemistry & Engineering*, 9(29), pp. 9698-9706. doi:10.1021/acssuschemeng.1c01618
- Pandey, P., Mettu, S., Mishra, H. N., Ashokkumar, M. & Martin, G. J. (2021). Multilayer co-encapsulation of probiotics and gamma-amino butyric acid (GABA) using ultrasound for functional food applications. *LWT – Food Science & Technology*, 146 pp. 10-. doi:10.1016/j.lwt.2021.111432
- Yatipanthalawa, B., Li, W., Hill, D. R., Trifunovic, Z., Ashokkumar, M., Scales, P. J. & Martin, G. J. (2021). Interplay between interfacial behaviour, cell structure and shear enables biphasic lipid extraction from whole diatom cells (*Navicula* sp.). *Journal of Colloid & Interface Science*, 589 pp. 65-76. doi:10.1016/j.jcis.2020.12.056
- Yatipanthalawa, B. & Martin, G. (2021). Conventional and novel approaches to extract food ingredients and nutraceuticals from microalgae. *Cultured Microalgae for the Food Industry* (pp. 73-96). Elsevier. doi:10.1016/b978-0-12-821080-2.00009-5
- Farrugia, B., Hayes, A. J. & Melrose, J. (2021). Use of Chondroitin Sulphate to Aid In Vitro Stem Cell Differentiation. *Proteoglycans in Stem Cells* (pp. 53-93). Springer International Publishing. doi:10.1007/978-3-030-73453-4_4
- Devnani, B., Ong, L., Kentish, S. E. & Gras, S. L. (2020) Heat induced denaturation, aggregation and gelation of almond proteins in skim and full fat almond milk, *Food Chemistry*, doi:https://doi.org/10.1016/j.foodchem.2020.126901.
- Li, W., Gamlath, C. J., Pathak, R., Martin, G. J. O. & Ashokkumar, M. (2020) Book chapter - Ultrasound - The physical and chemical effects integral to food processing. In: *Reference Module in Food Sciences*, Elsevier, <https://doi.org/10.1016/B978-0-08-100596-5.22679-6>.
- Vaskoska, R., Ha, M., Ong, L., Kearney, G., White, J.D., Gras, S. & Warner, R.D. (2020). Ageing and cathepsin inhibition affect the shrinkage of fibre fragments of bovine semitendinosus, biceps femoris and psoas major during heating. *Meat Science*, 172, DOI: 10.1016/j.meatsci.2020.108339

- Zychowski, L. M., Mettu, S., Dagastine, R. R., Kelly, A. L., O'Mahony, J. A. & Auty, M. A. (2019). Physical and interfacial characterization of phytosterols in oil-in-water triacylglycerol-based emulsions. *Food Structure*, 19 pp. 11-. doi:10.1016/j.foostr.2018.11.001
- Alavijeh, M.K., Meyer, A.S., Gras, S. & Kentish S. (2019) Simulation and economic assessment of large-scale enzymatic N-acetylglucosamine manufacture. *Biochemical Engineering Journal* 154: DOI: 10.1016/j.bej.2019.107459
- Sayanjali, S., Sanguansri, L., Ying, D., Buckow, R., Gras, S & Augustin, M. A. (2019) Extrusion of a Curcuminoid-Enriched Oat Fiber-Corn-Based Snack Product. *Journal of Food Science* 84(2) DOI: 10.1111/1750-3841.14432
- Xu, X., Martin, G. & Kentish, S. (2019). Enhanced CO₂ bio-utilization with a liquid-liquid membrane contactor in a bench-scale microalgae raceway pond. *Journal of CO₂ Utilization*, 34 pp. 207-214. doi:10.1016/j.jcou.2019.06.008
- Zheng, Q., Martin, G. & Kentish, S. (2019). The effects of medium salinity on the delivery of carbon dioxide to microalgae from capture solvents using a polymeric membrane system. *JOURNAL OF APPLIED PHYCOLOGY*, 31(3), pp. 1615-1622. doi:10.1007/s10811-018-1676-y
- Abdellah, M., Liu, L., Scholes, C., Freeman, B. & Kentish, S. (2019). Organic solvent nanofiltration of binary vegetable oil/terpene mixtures: Experiments and modelling. *JOURNAL OF MEMBRANE SCIENCE*, 573 pp. 694-703. doi:10.1016/j.memsci.2018.12.026
- Mettu, S., Yao, S., Law, S. Q., Sun, Z., Scales, P. J., Ashokkumar, M. & Martin, G. J. (2019). Rheological properties of concentrated slurries of harvested, incubated and ruptured *Nannochloropsis* sp. cells. *BMC Chemical Engineering*, 1(1), pp. 11-. doi:10.1186/s42480-019-0011-y
- Halim, R., Hill, D. R., Hanssen, E., Webley, P. A. & Martin, G. J. (2019). Thermally coupled dark-anoxia incubation: A platform technology to induce auto-fermentation and thus cell-wall thinning in both nitrogen-replete and nitrogen-deplete *Nannochloropsis* slurries. *Bioresource Technology*, 290 pp. 13-. doi:10.1016/j.biortech.2019.121769
- Halim, R., Hill, D. R., Hanssen, E., Webley, P. A., Blackburn, S., Grossman, A. R., ... Martin, G. J. (2019). Towards sustainable microalgal biomass processing: anaerobic induction of autolytic cell-wall self-ingestion in lipid-rich *Nannochloropsis* slurries. *Green Chemistry*, 21(11), pp. 2967-2982. doi:10.1039/c8gc03186j
- Li, X., Mettu, S., Martin, G. J., Ashokkumar, M. & Lin, C. S. (2019). Ultrasonic pretreatment of food waste to accelerate enzymatic hydrolysis for glucose production. *ULTRASONICS SONOCHEMISTRY*, 53 pp. 77-82. doi:10.1016/j.ultsonch.2018.12.035
- Hofgen, E., Collini, D., Batterham, R. J., Scales, P. J. & Stickland, A. D. (2019). High pressure dewatering rolls: Comparison of a novel prototype to existing industrial technology. *Chemical Engineering Science*, 205 pp. 106-120. doi:10.1016/j.ces.2019.03.080