S\_table 3 - Final selection of publication

|  |
| --- |
| Abdelmalek, B. E., Sila, A., Haddar, A., Bougatef, A., & Ayadi, M. A. (2017). β-Chitin and chitosan from squid gladius: Biological activities of chitosan and its application as clarifying agent for apple juice. International Journal of Biological Macromolecules, 104, 953–962. https://doi.org/10.1016/j.ijbiomac.2017.06.107 |
| Abdullah, T., Gzara, L., Simonetti, G., Alshahrie, A., Salah, N., Morganti, P., Chianese, A., Fallahi, A., Tamayol, A., Bencherif, S., & Memic, A. (2018). The Effect of Poly (Glycerol Sebacate) Incorporation within Hybrid Chitin–Lignin Sol–Gel Nanofibrous Scaffolds. Materials, 11(3), 451. https://doi.org/10.3390/ma11030451 |
| Abhirama, N. G., Nugraheni, P. S., & Budhijanto, W. (2019). Effectiveness of chitosan-tripolyphosphate nanoparticle dispersion in ice for fresh tilapia fish (Oreochromis niloticus) preservation. AIP Conference Proceedings, 2085. https://doi.org/10.1063/1.5095013 |
| Aboudamia, F. Z., Kharroubi, M., Neffa, M., Aatab, F., Hanoune, S., Bouchdoug, M., & Jaouad, A. (2020). Potential of discarded sardine scales (Sardina pilchardus) as chitosan sources. Journal of the Air and Waste Management Association, 70(11), 1186–1197. https://doi.org/10.1080/10962247.2020.1813840 |
| Addad, S., Exposito, J.-Y., Faye, C., Ricard-Blum, S., & Lethias, C. (2011). Isolation, characterization and biological evaluation of jellyfish collagen for use in biomedical applications. Marine Drugs, 9(6), 967–983. https://doi.org/10.3390/md9060967 |
| Águila-Almanza, E., Low, S. S., Hernández-Cocoletzi, H., Atonal-Sandoval, A., Rubio-Rosas, E., Violante-González, J., & Show, P. L. (2021). Facile and green approach in managing sand crab carapace biowaste for obtention of high deacetylation percentage chitosan. Journal of Environmental Chemical Engineering, 9(3). https://doi.org/10.1016/j.jece.2021.105229 |
| Ahmed, A. B. A., Taha, R. M., Mohajer, S., Elaagib, M. E., & Kim, S. K. (2012). Preparation, properties and biological applications of water soluble chitin oligosaccharides from marine organisms. Russian Journal of Marine Biology, 38(4), 351–358. https://doi.org/10.1134/S1063074012040025 |
| Ahmed, A., Hassan, A., & Nour, M. (2020). Utilization of chitosan extracted from shrimp shell waste in wastewater treatment as low cost biosorbent. Egyptian Journal of Chemistry, 0–0. https://doi.org/10.21608/ejchem.2020.43166.2871 |
| Akita, M., Kono, T., Lloyd, K., Mitsui, T., Morioka, K., & Adachi, K. (2019). Biochemical study of type I collagen purified from skin of warm sea teleost Mahi mahi (Coryphaena hippurus), with a focus on thermal and physical stability. Journal of Food Biochemistry, 43(11). https://doi.org/10.1111/jfbc.13013 |
| Al Sagheer, F. A., Al-Sughayer, M. A., Muslim, S., & Elsabee, M. Z. (2009). Extraction and characterization of chitin and chitosan from marine sources in Arabian Gulf. Carbohydrate Polymers, 77(2), 410–419. https://doi.org/10.1016/J.CARBPOL.2009.01.032 |
| Al-Ali, R. M., Al-Hilifi, S. A., & Rashed, M. M. A. (2021). Fabrication, characterization, and anti‐free radical performance of edible packaging‐chitosan film synthesized from shrimp shell incorporated with ginger essential oil. Journal of Food Measurement and Characterization, 15(4), 2951–2962. https://doi.org/10.1007/s11694-021-00875-0 |
| Alam, J., & Mathur, A. (2016). FIRST REPORT ON EVALUATION OF ANTI-DIABETIC POTENTIAL OF CHITIN AND CHITIN-BASED DERIVATIVES AGAINST ALLOXAN INDUCED ALBINO RATS. INTERNATIONAL JOURNAL OF PHARMACEUTICAL SCIENCES AND RESEARCH, 798–03. https://doi.org/10.13040/IJPSR.0975-8232.7(2).798-03 |
| Allouche, M., Hamdi, I., Nasri, A., Harrath, A. H., Mansour, L., Beyrem, H., & Boufahja, F. (2020). Laboratory bioassay exploring the effects of anti-aging skincare products on free-living marine nematodes: a case study of collagen. Environmental Science and Pollution Research, 27(10), 11403–11412. https://doi.org/10.1007/s11356-020-07655-1 |
| Alves, A. L., Marques, A. L. P., Martins, E., Silva, T. H., & Reis, R. L. (2017). Cosmetic potential of Marine fish skin collagen. Cosmetics, 4(4). https://doi.org/10.3390/cosmetics4040039 |
| Alves, H. J., Furman, M., Kugelmeier, C. L., De Oliveira, C. R., Bach, V. R., Lupatini, K. N., Neves, A. C., & Arantes, M. K. (2017). Effect of shrimp shells milling on the molar mass of chitosan. Polimeros, 27(1), 41–47. https://doi.org/10.1590/0104-1428.2354 |
| Amer, M. S., & Ibrahim, H. A. H. (2019). Chitosan from marine-derived Penicillum spinulosum MH2 cell wall with special emphasis on its antimicrobial and antifouling properties. The Egyptian Journal of Aquatic Research, 45(4), 359–365. https://doi.org/10.1016/J.EJAR.2019.11.007 |
| Aneesh, P. A., Anandan, R., Kumar, L. R. G., Ajeeshkumar, K. K., Kumar, K. A., & Mathew, S. (2020). A step to shell biorefinery—Extraction of astaxanthin-rich oil, protein, chitin, and chitosan from shrimp processing waste. Biomass Conversion and Biorefinery. https://doi.org/10.1007/s13399-020-01074-5 |
| Angerbjörn, A., Börjesson, P., & Brandberg, K. (2006). Stable isotope analysis of harbour porpoises and their prey from the Baltic and Kattegat/Skagerrak Seas. Marine Biology Research, 2(6), 411–419. https://doi.org/10.1080/17451000601023896 |
| Anithajothi, R., Nagarani, N., Umagowsalya, G., Duraikannu, K., & Ramakritinan, C. M. (2014). Screening, isolation and characterization of protease producing moderately halophilic microorganism Halomonas meridiana associated with coral mucus. Toxicological and Environmental Chemistry, 96(2), 296–306. https://doi.org/10.1080/02772248.2014.925182 |
| Apetroaei, M., Manea, A.-M., Tihan, G., Zgârian, R., Schroder, V., & Rǎu, I. (2017). Improved method of chitosan extraction from different crustacean species of Romanian black sea coast. UPB Scientific Bulletin, Series B: Chemistry and Materials Science, 79(1), 25–36. |
| Apetroaei, M., Schroder, V., Simion, M., Vasile, G., Dinu, C., Cruceru, L., & Simion, D. (2014). Identification and analysis of biopolymers from crustaceans decapod of the Romanian black sea waters. International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 2(3), 615–622. |
| Arias-Moscoso, J. L., Soto-Valdez, H., Plascencia-Jatomea, M., Vidal-Quintanar, R.-L., Rouzaud-Sández, O., & Ezquerra-Brauer, J. M. (2011). Composites of chitosan with acid-soluble collagen from jumbo squid (Dosidicus gigas) by-products. Polymer International, 60(6), 924–931. https://doi.org/10.1002/pi.3048 |
| Atasaral-Şahin, Ş., Romero, M. R., Cueto, R., González-Lavín, N., Marcos, M., & Diz, A. P. (2015). Subtle tissue and sex-dependent proteome variation in mussel (Mytilus galloprovincialis) populations of the Galician coast (NW Spain) raised in a common environment. Proteomics, 15(23–24), 3993–4006. https://doi.org/10.1002/pmic.201500241 |
| Balaji, J., Bothi Raja, P., Sethuraman, M. G., & Oh, T. H. (2021). Experimental and multiscale simulation studies on Chitosan doped Hybrid/Zirconium—a bio-nanocomposite coating for aluminium protection. Journal of Sol-Gel Science and Technology, 100(2), 341–351. https://doi.org/10.1007/s10971-021-05642-7 |
| Balde, A., Hasan, A., Joshi, I., & Nazeer, R. A. (2020). Preparation and optimization of chitosan nanoparticles from discarded squilla (Carinosquilla multicarinata) shells for the delivery of anti-inflammatory drug: Diclofenac. Journal of the Air and Waste Management Association, 70(12), 1227–1235. https://doi.org/10.1080/10962247.2020.1727588 |
| Balitaan, J. N. I., Yeh, J. M., & Santiago, K. S. (2020). Marine waste to a functional biomaterial: Green facile synthesis of modified-β-chitin from Uroteuthis duvauceli pens (gladius). International Journal of Biological Macromolecules, 154, 1565–1575. https://doi.org/10.1016/J.IJBIOMAC.2019.11.041 |
| Ban, Z., Horev, B., Rutenberg, R., Danay, O., Bilbao, C., McHugh, T., Rodov, V., & Poverenov, E. (2018). Efficient production of fungal chitosan utilizing an advanced freeze-thawing method; quality and activity studies. Food Hydrocolloids, 81, 380–388. https://doi.org/10.1016/J.FOODHYD.2018.03.010 |
| Banerjee, P., & Das, J. (2017). Biomimetic synthesis of nanocrystalline hydroxyapatite from sharkskin collagen. Bioinspired, Biomimetic and Nanobiomaterials, 7(1), 27–36. https://doi.org/10.1680/jbibn.16.00018 |
| Barber, P. S., Griggs, C. S., Bonner, J. R., & Rogers, R. D. (2013). Electrospinning of chitin nanofibers directly from an ionic liquid extract of shrimp shells. Green Chemistry, 15(3), 601. https://doi.org/10.1039/c2gc36582k |
| Barber, P. S., Shamshina, J. L., & Rogers, R. D. (2013). A “green” industrial revolution: Using chitin towards transformative technologies. Pure and Applied Chemistry, 85(8), 1693–1701. https://doi.org/10.1351/PAC-CON-12-10-14 |
| Bardakova, K. N., Akopova, T. A., Kurkov, A. V., Goncharuk, G. P., Butnaru, D. V., Burdukovskii, V. F., Antoshin, A. A., Farion, I. A., Zharikova, T. M., Shekhter, A. B., Yusupov, V. I., Timashev, P. S., & Rochev, Y. A. (2019). From Aggregates to Porous Three-Dimensional Scaffolds through a Mechanochemical Approach to Design Photosensitive Chitosan Derivatives. Marine Drugs, 17(1), 48. https://doi.org/10.3390/md17010048 |
| Baryshnikov, A., Derkach, S., Shumskaya, N., Rysakova, K., Lyzhov, I., & Ripak, Y. (2020). Collagen Isolation from Arctic Marine Organisms and Their Industrial Processing Wastes. KnE Life Sciences, 295–304. https://doi.org/10.18502/kls.v5i1.6073 |
| Batista, A., Silva, M., Batista, J., Nascimento, A., & Campos-Takaki, G. (2013). Eco-Friendly Chitosan Production by Syncephalastrum racemosum and Application to the Removal of Acid Orange 7 (AO7) from Wastewaters. Molecules, 18(7), 7646–7660. https://doi.org/10.3390/molecules18077646 |
| Bazargan-Lari, R., Bahrololoom, M. E., & Nemati, A. (2011). Sorption behavior of Zn (II) ions by low cost and biological natural hydroxyapatite/chitosan composite from industrial waste water. Journal of Food, Agriculture and Environment, 9(3–4), 892–897. |
| Beaney, P., Lizardi-Mendoza, J., & Healy, M. (2005). Comparison of chitins produced by chemical and bioprocessing methods. Journal of Chemical Technology and Biotechnology, 80(2), 145–150. https://doi.org/10.1002/jctb.1164 |
| Bedekar, A. N., Pise, A. C., Thatte, C. S., & Rathnam, M. V. (2010). Study on optimization of carboxymethylation of chitosan obtained from squilla chitin. Asian Journal of Chemistry, 22(10), 7675–7682. |
| Benbettaïeb, N., Karbowiak, T., Brachais, C.-H., & Debeaufort, F. (2015). Coupling tyrosol, quercetin or ferulic acid and electron beam irradiation to cross-link chitosan-gelatin films: A structure-function approach. European Polymer Journal, 67, 113–127. https://doi.org/10.1016/j.eurpolymj.2015.03.060 |
| Bengtsson, B.-E. (1988). Effects of pulp mill effluents on skeletal parameters in fish - A progress report. Water Science and Technology, 20(2), 87–94. https://doi.org/10.2166/wst.1988.0049 |
| Bernardi, F., Zadinelo, I. V., Alves, H. J., Meurer, F., & dos Santos, L. D. (2018). Chitins and chitosans for the removal of total ammonia of aquaculture effluents. Aquaculture, 483, 203–212. https://doi.org/10.1016/j.aquaculture.2017.10.027 |
| Besednova, N. N., Zaporozhets, T. S., Kovalev, N. N., Makarenkova, I. D., & Yakovlev, Y. M. (2017). Cephalopods: The potential for their use in medicine. Russian Journal of Marine Biology, 43(2), 101–110. https://doi.org/10.1134/S1063074017020031 |
| Beygmoradi, A., Homaei, A., Hemmati, R., Arco, J. Del, & Fernández-Lucas, J. (2021). Identification of a novel tailor-made chitinase from white shrimp Fenneropenaeus merguiensis. Colloids and Surfaces B: Biointerfaces, 203, 111747. https://doi.org/10.1016/J.COLSURFB.2021.111747 |
| Bird, M. I., Crabtree, S. A., Haig, J., Ulm, S., & Wurster, C. M. (2021). A global carbon and nitrogen isotope perspective on modern and ancient human diet. Proceedings of the National Academy of Sciences of the United States of America, 118(19). https://doi.org/10.1073/pnas.2024642118 |
| Biris Dorhoi, E. S., Tofana, M., Chis, S. M., Lupu, C. E., Negreanu Pirjol, T., Biris-Dorhoi, S., Tofana, M., Maria Simona, C., Lupu, E., & Pirjol, T. (2018). Wastewater Treatment Using Marine Algae Biomass as Pollutants Removal. Revista de Chimie, 69(5), 1089–1098. https://doi.org/10.37358/RC.18.5.6267 |
| Bisht, M., Martins, M., Dias, A. C. R. V., Ventura, S. P. M., & Coutinho, J. A. P. (2021). Uncovering the potential of aqueous solutions of deep eutectic solvents on the extraction and purification of collagen type I from Atlantic codfish (Gadus morhua). Green Chemistry, 23(22), 8940–8948. https://doi.org/10.1039/d1gc01432c |
| Blanco, M., Vázquez, J. A., Pérez-Martín, R. I., & Sotelo, C. G. (2019). Collagen extraction optimization from the skin of the small-spotted catshark (S. Canicula) by response surface methodology. Marine Drugs, 17(1). https://doi.org/10.3390/md17010040 |
| Blank, C. E., & Hinman, N. W. (2016). Cyanobacterial and algal growth on chitin as a source of nitrogen; ecological, evolutionary, and biotechnological implications. Algal Research, 15, 152–163. https://doi.org/10.1016/j.algal.2016.02.014 |
| Borchert, E., García-Moyano, A., Sanchez-Carrillo, S., Dahlgren, T. G., Slaby, B. M., Bjerga, G. E. K., Ferrer, M., Franzenburg, S., & Hentschel, U. (2021). Deciphering a marine bone-degrading microbiome reveals a complex community effort. MSystems, 6(1). https://doi.org/10.1128/MSYSTEMS.01218-20 |
| Borzacchiello, A., Ambrosio, L., Netti, P. A., Nicolais, L., Peniche, C., Gallardo, A., & San Roman, J. (2001). Chitosan-based hydrogels: Synthesis and characterization. Journal of Materials Science: Materials in Medicine, 12(10–12), 861–864. https://doi.org/10.1023/A:1012851402759 |
| Bradić, B., Novak, U., & Likozar, B. (2019). Crustacean shell bio-refining to chitin by natural deep eutectic solvents. Green Processing and Synthesis, 9(1), 13–25. https://doi.org/10.1515/gps-2020-0002 |
| Fuller, B. T., Müldner, G., Van Neer, W., Ervynck, A., & Richards, M. P. (2012). Carbon and nitrogen stable isotope ratio analysis of freshwater, brackish and marine fish from Belgian archaeological sites (1st and 2nd millennium AD). Journal of Analytical Atomic Spectrometry, 27(5), 807–820. https://doi.org/10.1039/c2ja10366d |
| Brysch, C. N., Wold, E., Patterson, M., Ordoñez Olivares, R., Eberth, J. F., & Robles Hernandez, F. C. (2014). Chitosan and chitosan composites reinforced with carbon nanostructures. Journal of Alloys and Compounds, 615(S1), S515–S521. https://doi.org/10.1016/j.jallcom.2014.01.049 |
| Bullock, G., Blazer, V., Tsukuda, S., & Summerfelt, S. (2000). Toxicity of acidified chitosan for cultured rainbow trout (Oncorhynchus mykiss). Aquaculture, 185(3–4), 273–280. https://doi.org/10.1016/S0044-8486(99)00359-2 |
| Burgos-Díaz, C., Opazo-Navarrete, M., Palacios, J. L., Barahona, T., Mosi-Roa, Y., Anguita-Barrales, F., & Bustamante, M. (2021). Synthesis of new chitosan from an endemic chilean crayfish exoskeleton (Parastacus pugnax): Physicochemical and biological properties. Polymers, 13(14). https://doi.org/10.3390/polym13142304 |
| Cahú, T. B., Santos, S. D., Mendes, A., Córdula, C. R., Chavante, S. F., Carvalho, L. B., Nader, H. B., & Bezerra, R. S. (2012). Recovery of protein, chitin, carotenoids and glycosaminoglycans from Pacific white shrimp (Litopenaeus vannamei) processing waste. Process Biochemistry, 47(4), 570–577. https://doi.org/10.1016/j.procbio.2011.12.012 |
| Carballeira, C., Espinosa, J., & Carballeira, A. (2011). Linking δ15N and histopathological effects in molluscs exposed in situ to effluents from land-based marine fish farms. Marine Pollution Bulletin, 62(12), 2633–2641. https://doi.org/10.1016/j.marpolbul.2011.09.034 |
| Cardozo, F. A., Facchinatto, W. M., Colnago, L. A., Campana-Filho, S. P., & Pessoa, A. (2019). Bioproduction of N-acetyl-glucosamine from colloidal α-chitin using an enzyme cocktail produced by Aeromonas caviae CHZ306. World Journal of Microbiology and Biotechnology, 35(8), 114. https://doi.org/10.1007/s11274-019-2694-x |
| Carrera, M., Ezquerra-Brauer, J. M., & Aubourg, S. P. (2020). Characterization of the jumbo squid (dosidicus gigas) skin by-product by shotgun proteomics and protein-based bioinformatics. Marine Drugs, 18(1). https://doi.org/10.3390/md18010031 |
| Carvalho, A. M., Marques, A. P., Silva, T. H., & Reis, R. L. (2018). Evaluation of the potential of collagen from codfish skin as a biomaterial for biomedical applications. Marine Drugs, 16(12). https://doi.org/10.3390/md16120495 |
| Casanova, F., Mohammadifar, M. A., Jahromi, M., Petersen, H. O., Sloth, J. J., Eybye, K. L., Kobbelgaard, S., Jakobsen, G., & Jessen, F. (2020). Physico-chemical, structural and techno-functional properties of gelatin from saithe (Pollachius virens) skin. International Journal of Biological Macromolecules, 156, 918–927. https://doi.org/10.1016/J.IJBIOMAC.2020.04.047 |
| Cha, S. H., Lee, J. S., Song, C. B., Lee, K. J., & Jeon, Y. J. (2008). Effects of chitosan-coated diet on improving water quality and innate immunity in the olive flounder, Paralichthys olivaceus. Aquaculture, 278(1–4), 110–118. https://doi.org/10.1016/J.AQUACULTURE.2008.01.025 |
| Chávez-Mardones, J., Valenzuela-Muños, V., & Gallardo-Escárate, C. (2016). In silico transcriptome analysis of cuticle-related genes associated with delousing drug responses in the sea louse Caligus rogercresseyi. Aquaculture, 450, 123–135. https://doi.org/10.1016/j.aquaculture.2015.07.017 |
| Chen, S., Yang, Q., Chen, X., Tian, Y., Liu, Z., & Wang, S. (2020). Bioactive peptides derived from crimson snapper and: In vivo anti-aging effects on fat diet-induced high fat Drosophila melanogaster. Food and Function, 11(1), 524–533. https://doi.org/10.1039/c9fo01414d |
| Cheng, W. P., Chi, F. H., Yu, R. F., & Lee, Y. C. (2005). Using chitosan as a coagulant in recovery of organic matters from the mash and lauter wastewater of brewery. Journal of Polymers and the Environment, 13(4), 383–388. https://doi.org/10.1007/s10924-005-5533-0 |
| Cherim, M., Sirbu, R., Tomescu, A., Popa, M. F., & Cadar, E. (2019). Comparative studies on the physico-chemical characteristics of bio-materials with collagen from calf and fish skins from black sea. Materiale Plastice, 56(1), 179–185. https://doi.org/10.37358/mp.19.1.5147 |
| Chiarelli, P. G., Pegg, R. B., Dev Kumar, G., & Mis Solval, K. (2021). Exploring the feasibility of developing novel gelatin powders from salted, dried cannonball jellyfish (Stomolophus meleagris). Food Bioscience, 44. https://doi.org/10.1016/j.fbio.2021.101397 |
| Cho, J.-K., Jin, Y.-G., Rha, S.-J., Kim, S.-J., & Hwang, J.-H. (2014). Biochemical characteristics of four marine fish skins in Korea. Food Chemistry, 159, 200–207. https://doi.org/10.1016/j.foodchem.2014.03.012 |
| Christensen, J., & Richardson, K. (2008). Stable isotope evidence of long-term changes in the North Sea food web structure. Marine Ecology Progress Series, 368, 1–8. https://doi.org/10.3354/meps07635 |
| Chung, Y.-C. (2006). Improvement of aquaculture wastewater using chitosan of different degrees of deacetylation. Environmental Technology, 27(11), 1199–1208. https://doi.org/10.1080/09593332708618734 |
| Cogollo-Herrera, K., Bonfante-Álvarez, H., De Ávila-Montiel, G., Barros, A. H., & González-Delgado, Á. D. (2018). Techno-economic sensitivity analysis of large scale chitosan production process from shrimp shell wastes. Chemical Engineering Transactions, 70, 2179–2184. https://doi.org/10.3303/CET1870364 |
| Correa, K., Lhorente, J. P., Bassini, L., López, M. E., Di Genova, A., Maass, A., Davidson, W. S., & Yáñez, J. M. (2017). Genome wide association study for resistance to Caligus rogercresseyi in Atlantic salmon (Salmo salar L.) using a 50K SNP genotyping array. Aquaculture, 472, 61–65. https://doi.org/10.1016/j.aquaculture.2016.04.008 |
| Costa, R. A., & Power, D. M. (2018). Skin and scale regeneration after mechanical damage in a teleost. Molecular Immunology, 95, 73–82. https://doi.org/10.1016/j.molimm.2018.01.016 |
| Coughlin, R. W., Deshaies, M. R., & Davis, E. M. (1990). Chitosan in crab shell wastes purifies electroplating wastewater. Environmental Progress, 9(1), 35–39. https://doi.org/10.1002/ep.670090116 |
| Coutinho, P., Rema, P., Otero, A., Pereira, O., & Fabregas, J. (2006). Use of biomass of the marine microalga Isochrysis galbana in the nutrition of goldfish (Carassius auratus) larvae as source of protein and vitamins. Aquaculture Research, 37(8), 793–798. https://doi.org/10.1111/j.1365-2109.2006.01492.x |
| Coward-Kelly, G., Agbogbo, F. K., & Holtzapple, M. T. (2006). Lime treatment of shrimp head waste for the generation of highly digestible animal feed. Bioresource Technology, 97(13), 1515–1520. https://doi.org/10.1016/j.biortech.2005.06.014 |
| Cretton, M., Malanga, G., Mazzuca Sobczuk, T., & Mazzuca, M. (2021). Lipid Fraction from Industrial Crustacean Waste and Its Potential as a Supplement for the Feed Industry: A Case Study in Argentine Patagonia. Waste and Biomass Valorization, 12(5), 2311–2319. https://doi.org/10.1007/s12649-020-01162-7 |
| D’Ambra, I., & Malej, A. (2015). Scyphomedusae of the Mediterranean: State of the art and future perspectives. Central Nervous System Agents in Medicinal Chemistry, 15(2), 81–94. https://doi.org/10.2174/1871524915666150326114733 |
| Dang, T. T., Feyissa, A. H., Gringer, N., Jessen, F., Olsen, K., Bøknæs, N., & Orlien, V. (2020). Effects of high pressure and ohmic heating on shell loosening, thermal and structural properties of shrimp (Pandalus borealis). Innovative Food Science and Emerging Technologies, 59. https://doi.org/10.1016/j.ifset.2019.102246 |
| Das, J., Dey, P., Chakraborty, T., Saleem, K., Nagendra, R., & Banerjee, P. (2018). Utilization of marine industry waste derived collagen hydrolysate as peroxide inhibition agents in lipid-based food. Journal of Food Processing and Preservation, 42(2). https://doi.org/10.1111/jfpp.13430 |
| Dave, D., Liu, Y., Clark, L., Dave, N., Trenholm, S., & Westcott, J. (2019). Availability of marine collagen from Newfoundland fisheries and aquaculture waste resources. Bioresource Technology Reports, 7. https://doi.org/10.1016/j.biteb.2019.100271 |
| Dawood, M. A. O., Gewaily, M. S., Soliman, A. A., Shukry, M., Amer, A. A., Younis, E. M., Abdel-Warith, A.-W. A., Van Doan, H., Saad, A. H., Aboubakr, M., Abdel-Latif, H. M. R., & Fadl, S. E. (2020). Marine-Derived Chitosan Nanoparticles Improved the Intestinal Histo-Morphometrical Features in Association with the Health and Immune Response of Grey Mullet (Liza ramada). Marine Drugs, 18(12). https://doi.org/10.3390/md18120611 |
| de la Paz, N., Fernández, M., López, O., Garcia, C., Nogueira, A., Torres, L., Turiño, W., & Heinämäki, J. (2021). Spray drying of chitosan acid salts: Process development, scaling up and physicochemical material characterization. Marine Drugs, 19(6). https://doi.org/10.3390/md19060329 |
| Dehghani, M. H., Dehghan, A., & Najafpoor, A. (2017). Removing Reactive Red 120 and 196 using chitosan/zeolite composite from aqueous solutions: Kinetics, isotherms, and process optimization. Journal of Industrial and Engineering Chemistry, 51, 185–195. https://doi.org/10.1016/j.jiec.2017.03.001 |
| Devi, R., & Dhamodharan, R. (2018). Pretreatment in Hot Glycerol for Facile and Green Separation of Chitin from Prawn Shell Waste. ACS Sustainable Chemistry & Engineering, 6(1), 846–853. https://doi.org/10.1021/acssuschemeng.7b03195 |
| Di Benedetto, C., Barbaglio, A., Martinello, T., Alongi, V., Fassini, D., Cullorà, E., Patruno, M., Bonasoro, F., Barbosa, M. A., Carnevali, M. D. C., Carnevali, M. D. C., & Sugni, M. (2014). Production, characterization and biocompatibility of marine collagen matrices from an alternative and sustainable source: The sea urchin Paracentrotus lividus. Marine Drugs, 12(9), 4912–4933. https://doi.org/10.3390/md12094912 |
| Diogo, G. S., López-Senra, E., Pirraco, R. P., Canadas, R. F., Fernandes, E. M., Serra, J., Pérez-Martín, R. I., Sotelo, C. G., Marques, A. P., González, P., Silva, T. H., & Reis, R. L. (2018). Marine collagen/apatite composite scaffolds envisaging hard tissue applications. Marine Drugs, 16(8). https://doi.org/10.3390/md16080269 |
| do Vale, D. A., Vieira, C. B., Vidal, M. F., Claudino, R. L., Andrade, F. K., Sousa, J. R., Souza Filho, M. S. M., da Silva, A. L. C., & de Souza, B. W. S. (2021). Chitosan-Based Edible Films Produced from Crab-Uçá (Ucides cordatus) Waste: Physicochemical, Mechanical and Antimicrobial Properties. Journal of Polymers and the Environment, 29(3), 694–706. https://doi.org/10.1007/s10924-020-01913-6 |
| Doan, C. T., Tran, T. N., Wen, I.-H., Nguyen, V. B., Nguyen, A. D., & Wang, S.-L. (2019). Conversion of Shrimp Head Waste for Production of a Thermotolerant, Detergent-Stable, Alkaline Protease by Paenibacillus sp. Catalysts, 9(10), 798. https://doi.org/10.3390/catal9100798 |
| Doğdu, S., Turan, C., Depci, T., & Ayas, D. (2021). Natural hydroxyapatite obtained from pufferfish teeth for potential dental application. Journal of Ceramic Processing Research, 22, 356–361. https://doi.org/10.36410/jcpr.2021.22.3.356 |
| Dong, X., Yuan, Q., Qi, H., Yang, J., Zhu, B., Zhou, D., Murata, Y., & Ye, W. (2012). Isolation and characterization of pepsin-soluble collagen from abalone (Haliotis discus hannai) gastropod muscle part ii. Food Science and Technology Research, 18(2), 271–278. https://doi.org/10.3136/fstr.18.271 |
| Doraiswamy, A., Narayan, R. J., Cristescu, R., Mihailescu, I. N., & Chrisey, D. B. (2007). Laser processing of natural mussel adhesive protein thin films. Materials Science and Engineering: C, 27(3), 409–413. https://doi.org/10.1016/j.msec.2006.05.026 |
| Drago, M., Crespo, E., Aguilar, A., Cardona, L., García, N., Dans, S., & Goodall, N. (2009). Historic diet change of the South American sea lion in Patagonia as revealed by isotopic analysis. Marine Ecology Progress Series, 384, 273–286. https://doi.org/10.3354/meps08017 |
| Duasa, J., Husin, A. M., Asmy Mohd Thas Thaker, M., & Rahman, M. P. (2021). An alternative source of collagen for Muslim consumers: halal and environmental concerns. Journal of Islamic Marketing. https://doi.org/10.1108/JIMA-09-2020-0268 |
| El Harmoudi, H., El Gaini, L., Daoudi, E., Rhazi, M., Boughaleb, Y., El Mhammedi, M. A., Migalska-Zalas, A., & Bakasse, M. (2014). Removal of 2,4-D from aqueous solutions by adsorption processes using two biopolymers: Chitin and chitosan and their optical properties. Optical Materials, 36(9), 1471–1477. https://doi.org/10.1016/j.optmat.2014.03.040 |
| Elwakeel, K. Z., Al-Bogami, A. S., & Elgarahy, A. M. (2018). Efficient Retention of Chromate from Industrial Wastewater onto a Green Magnetic Polymer Based on Shrimp Peels. Journal of Polymers and the Environment, 26(5), 2018–2029. https://doi.org/10.1007/s10924-017-1096-0 |
| Eulálio, H. Y. C., Vieira, M., Fideles, T. B., Tomás, H., Silva, S. M. L., Peniche, C. A., & Fook, M. V. L. (2020). Physicochemical properties and cell viability of shrimp chitosan films as affected by film casting solvents. I-potential use as wound dressing. Materials, 13(21), 1–18. https://doi.org/10.3390/ma13215005 |
| Fabbricino, M., & Gallo, R. (2010). Chromium removal from tannery wastewater using ground shrimp shells. Desalination and Water Treatment, 23(1–3), 194–198. https://doi.org/10.5004/dwt.2010.2020 |
| Faisal, M., Elhussieny, A., Ali, K. A., Samy, I., & Everitt, N. M. (2018). Extraction of degradable bio polymer materials from shrimp shell wastes by two different methods. IOP Conference Series: Materials Science and Engineering, 464(1). https://doi.org/10.1088/1757-899X/464/1/012004 |
| Fan, R., Zhou, D., & Cao, X. (2020). Evaluation of oat β-glucan-marine collagen peptide mixed gel and its application as the fat replacer in the sausage products. PLoS ONE, 15(5). https://doi.org/10.1371/journal.pone.0233447 |
| Fang, L., Wolmarans, B., Kang, M., Jeong, K. C., & Wright, A. C. (2015). Application of chitosan microparticles for reduction of Vibrio species in seawater and live oysters (Crassostrea virginica). Applied and Environmental Microbiology, 81(2), 640–647. https://doi.org/10.1128/AEM.02856-14 |
| Feranec, R. S., & Hart, J. P. (2019). Fish and maize: Bayesian mixing models of fourteenth- through seventeenth-century AD ancestral Wendat diets, Ontario, Canada. Scientific Reports, 9(1). https://doi.org/10.1038/s41598-019-53076-7 |
| Fernandez, J. G., & Ingber, D. E. (2013). Bioinspired chitinous material solutions for environmental sustainability and medicine. Advanced Functional Materials, 23(36), 4454–4466. https://doi.org/10.1002/adfm.201300053 |
| Fernández-Marín, R., Hernández-Ramos, F., Salaberria, A. M., Andrés, M. Á., Labidi, J., & Fernandes, S. C. M. (2021). Eco-friendly isolation and characterization of nanochitin from different origins by microwave irradiation: Optimization using response surface methodology. International Journal of Biological Macromolecules, 186, 218–226. https://doi.org/10.1016/j.ijbiomac.2021.07.048 |
| Fetner, R. A., & Iwaszczuk, U. (2020). Isotopic evidence of possible long-distance freshwater fish trade in the 13th to 14th century Chełm, modern Poland. International Journal of Osteoarchaeology. https://doi.org/10.1002/oa.2931 |
| Fines, B. C., & Holt, G. J. (2010). Chitinase and apparent digestibility of chitin in the digestive tract of juvenile cobia, Rachycentron canadum. Aquaculture, 303(1–4), 34–39. https://doi.org/10.1016/j.aquaculture.2010.03.010 |
| Firdaus, F. E., Purnamasari, I., & Gunatama, P. (2018). Chitin and Chitosan from Green Shell (Perna Viridis): Utilization Fisheries Wastes from Traditional Market in Jakarta. MATEC Web of Conferences, 248. https://doi.org/10.1051/matecconf/201824804002 |
| Frick, J. E., & Ruppert, E. E. (2001). Preliminary nutritional analysis of Lancelets, a promising seafood with aquacultural potential. Journal of Aquatic Food Product Technology, 10(1), 63–75. https://doi.org/10.1300/J030v10n01\_06 |
| Frouin, M., Lahaye, C., Valladas, H., Higham, T., Debénath, A., Delagnes, A., & Mercier, N. (2017). Dating the Middle Paleolithic deposits of La Quina Amont (Charente, France) using luminescence methods. Journal of Human Evolution, 109, 30–45. https://doi.org/10.1016/j.jhevol.2017.05.002 |
| Fu, X., Xue, C., Jiang, L., Miao, B., Li, Z., & Xue, Y. (2008). Structural changes in squid (Loligo japonica) collagen after modification by formaldehyde. Journal of the Science of Food and Agriculture, 88(15), 2663–2668. https://doi.org/10.1002/jsfa.3387 |
| Gadgey, K. K., & Bahekar, A. (2017). Studies on extraction methods of chitin from crab shell and investigation of its mechanical properties. International Journal of Mechanical Engineering and Technology, 8(2), 220–231. |
| Gadgey, K. K., & Dey, S. (2017). Development of chitin and chitosan from narmada riverside crab shells. International Journal of Mechanical Engineering and Technology, 8(7), 298–307. |
| García-Santiago, X., Franco-Uría, A., Antelo, L. T., Vázquez, J. A., Pérez-Martín, R., Moreira, M. T., & Feijoo, G. (2021). Eco-efficiency of a marine biorefinery for valorization of cartilaginous fish biomass. Journal of Industrial Ecology, 25(3), 789–801. https://doi.org/10.1111/jiec.13066 |
| Gartner, C., Peláez, C. A., & López, B. L. (2010). Characterization of chitin and chitosan extracted from shrimp shells by two methods. E-Polymers. https://doi.org/10.1515/epoly.2010.10.1.748 |
| Gaspar‐Pintiliescu, A., Anton, E. D., Iosageanu, A., Berger, D., Matei, C., Mitran, R., Negreanu‐Pirjol, T., Craciunescu, O., & Moldovan, L. (2021). Enhanced Wound Healing Activity of Undenatured Type I Collagen Isolated from Discarded Skin of Black Sea Gilthead Bream ( Sparus aurata ) Conditioned as 3D Porous Dressing. Chemistry & Biodiversity, 18(8). https://doi.org/10.1002/cbdv.202100293 |
| Ge, H., Lin, K., Zhou, C., Lin, Q., Zhang, Z., Wu, J., Zheng, L., Yang, Q., Wu, S., Chen, W., Chen, W., & Wang, Y. (2020). A multi-omic analysis of orange-spotted grouper larvae infected with nervous necrosis virus identifies increased adhesion molecules and collagen synthesis in the persistent state. Fish and Shellfish Immunology, 98, 595–604. https://doi.org/10.1016/j.fsi.2020.01.056 |
| Geetha Devi, M., Dumaran, J. J., & Feroz, S. (2012). Dairy Wastewater Treatment Using Low Molecular Weight Crab Shell Chitosan. Journal of The Institution of Engineers (India): Series E, 93(1), 9–14. https://doi.org/10.1007/s40034-012-0005-2 |
| George, J., & Manjusha, W. (2020). Extraction and Purification of Collagen from Marine Squid Uroteuthis Duvauceli. International Journal of Life Science and Pharma Research, 10(4), 77–89. https://doi.org/10.22376/ijpbs/lpr.2020.10.4.L77-89 |
| Georgieva, V., Zvezdova, D., & Vlaev, L. (2012). Non-isothermal kinetics of thermal degradation of chitosan. Chemistry Central Journal, 6(1), 81. https://doi.org/10.1186/1752-153X-6-81 |
| Ghazali, F. C., Edinur, H. A., Sirajudeen, K. N. S., Aroyehun, A. Q. B., & Razak, S. A. (2019). The value of geochemical signatures marine by-products, with highlights from taxonomies sea cucumbers, macroalgae and crown of thorns starfish. 020021. https://doi.org/10.1063/1.5117081 |
| Gibert, O., & Kumar Rakshit, S. (2005). Cassava starch snack formulation using functional shell fish by-products: mechanical, sorption and geometric properties. Journal of the Science of Food and Agriculture, 85(11), 1938–1946. https://doi.org/10.1002/jsfa.2200 |
| Gökalp, M., Kooistra, T., Rocha, M. S., Silva, T. H., Osinga, R., Murk, A. J., & Wijgerde, T. (2020). The Effect of Depth on the Morphology, Bacterial Clearance, and Respiration of the Mediterranean Sponge Chondrosia reniformis (Nardo, 1847). Marine Drugs, 18(7). https://doi.org/10.3390/md18070358 |
| Gökalp, M., Wijgerde, T., Murk, A., & Osinga, R. (2022). Design for large-scale maricultures of the Mediterranean demosponge Chondrosia reniformis Nardo, 1847 for collagen production. Aquaculture, 548. https://doi.org/10.1016/j.aquaculture.2021.737702 |
| Gökalp, M., Wijgerde, T., Sarà, A., De Goeij, J. M., & Osinga, R. (2019). Development of an Integrated Mariculture for the Collagen-Rich Sponge Chondrosia reniformis. Marine Drugs, 17(1), 29. https://doi.org/10.3390/md17010029 |
| Gomes, L. C., Faria, S. I., Valcarcel, J., Vázquez, J. A., Cerqueira, M. A., Pastrana, L., Bourbon, A. I., & Mergulhão, F. J. (2021). The effect of molecular weight on the antimicrobial activity of chitosan from Loligo opalescens for food packaging applications. Marine Drugs, 19(7). https://doi.org/10.3390/md19070384 |
| Goosey, M., & Kellner, R. (2012). Recovery of copper from PCB manufacturing effluent using chitin and chitosan. Circuit World, 38(1), 16–20. https://doi.org/10.1108/03056121211195012 |
| Guan, F., Han, Y., Yan, K., Zhang, Y., Zhang, Z., Wu, N., & Tian, J. (2020). Highly efficient production of chitooligosaccharides by enzymes mined directly from the marine metagenome. Carbohydrate Polymers, 234. https://doi.org/10.1016/j.carbpol.2020.115909 |
| Guerra, I. C. D., De Oliveira, P. D. L., Santos, M. M. F., Lúcio, A. S. S. C., Tavares, J. F., Barbosa-Filho, J. M., Madruga, M. S., & De Souza, E. L. (2016). The effects of composite coatings containing chitosan and Mentha (piperita L. or x villosa Huds) essential oil on postharvest mold occurrence and quality of table grape cv. Isabella. Innovative Food Science and Emerging Technologies, 34, 112–121. https://doi.org/10.1016/j.ifset.2016.01.008 |
| Guiry, E. J., Kennedy, J. R., O’Connell, M. T., Gray, D. R., Grant, C., & Szpak, P. (2021). Early evidence for historical overfishing in the Gulf of Mexico. Science Advances, 7(32). https://doi.org/10.1126/sciadv.abh2525 |
| Guo, B., Li, P.-Y., Yue, Y.-S., Zhao, H.-L., Dong, S., Song, X.-Y., Sun, C.-Y., Zhang, W.-X., Chen, X.-L., Zhang, X.-Y., Zhou, B.-C., & Zhang, Y.-Z. (2013). Gene Cloning, Expression and Characterization of a Novel Xylanase from the Marine Bacterium, Glaciecola mesophila KMM241. Marine Drugs, 11(12), 1173–1187. https://doi.org/10.3390/md11041173 |
| Guo, H., Hong, Z., & Yi, R. (2015). Core-Shell Collagen Peptide Chelated Calcium/Calcium Alginate Nanoparticles from Fish Scales for Calcium Supplementation. Journal of Food Science, 80(7), N1595–N1601. https://doi.org/10.1111/1750-3841.12912 |
| Gurav, V. L., & Samant, R. A. (2020). Chitosan from Waste Marine Sources Immobilized Silica: Differential Pulse Voltammetric Determination of Heavy Metal Ions from Industrial Effluent. Water Conservation Science and Engineering, 5(1–2), 15–21. https://doi.org/10.1007/s41101-019-00080-7 |
| Haddar, A., Hmidet, N., Ghorbel-Bellaaj, O., Fakhfakh-Zouari, N., Sellami-Kamoun, A., & Nasri, M. (2011). Alkaline proteases produced by Bacillus licheniformis RP1 grown on shrimp wastes: Application in chitin extraction, chicken feather-degradation and as a dehairing agent. Biotechnology and Bioprocess Engineering, 16(4), 669–678. https://doi.org/10.1007/s12257-010-0410-7 |
| Hahn, T., Roth, A., Ji, R., Schmitt, E., & Zibek, S. (2020). Chitosan production with larval exoskeletons derived from the insect protein production. Journal of Biotechnology, 310, 62–67. https://doi.org/10.1016/j.jbiotec.2019.12.015 |
| Halal, C. Y., Moura, J. M., & Pinto, L. A. A. (2011). Evaluation of molecular weight of chitosan in thin-layer and spouted bed drying. Journal of Food Process Engineering, 34(1), 160–174. https://doi.org/10.1111/j.1745-4530.2008.00345.x |
| Hammami, A., Hamdi, M., Abdelhedi, O., Jridi, M., Nasri, M., & Bayoudh, A. (2017). Surfactant- and oxidant-stable alkaline proteases from Bacillus invictae : Characterization and potential applications in chitin extraction and as a detergent additive. International Journal of Biological Macromolecules, 96, 272–281. https://doi.org/10.1016/j.ijbiomac.2016.12.035 |
| Han, S. B., Won, B., Yang, S. chan, & Kim, D. H. (2021). Asterias pectinifera derived collagen peptide-encapsulating elastic nanoliposomes for the cosmetic application. Journal of Industrial and Engineering Chemistry, 98, 289–297. https://doi.org/10.1016/J.JIEC.2021.03.039 |
| Han, Y., Xu, Y., Ye, Q., Li, J., & Fang, Z. (2021). Marine Sponge-Inspired Organic-Inorganic Double-Network Strategy to Produce Magnesium Oxychloride Cement with Integrated Water Resistance and Compressive Strength. ACS Sustainable Chemistry and Engineering, 9(46), 15514–15524. https://doi.org/10.1021/acssuschemeng.1c05214 |
| He, S., Sun, X., Du, M., Chen, H., Tan, M., Sun, H., & Zhu, B. (2019). Effects of muscle protein denaturation and water distribution on the quality of false abalone (Volutharpa ampullacea perryi) during wet heating. Journal of Food Process Engineering, 42(1). https://doi.org/10.1111/jfpe.12932 |
| Hemalatha, T., UmaMaheswari, T., Senthil, R., Krithiga, G., & Anbukkarasi, K. (2017). Efficacy of chitosan films with basil essential oil: perspectives in food packaging. Journal of Food Measurement and Characterization, 11(4), 2160–2170. https://doi.org/10.1007/s11694-017-9601-7 |
| Hillis, D., McKechnie, I., Guiry, E., St. Claire, D. E., & Darimont, C. T. (2020). Ancient dog diets on the Pacific Northwest Coast: zooarchaeological and stable isotope modelling evidence from Tseshaht territory and beyond. Scientific Reports, 10(1), 15630. https://doi.org/10.1038/s41598-020-71574-x |
| Hofman, K., Tucker, N., Stanger, J., Staiger, M., Marshall, S., & Hall, B. (2012). Effects of the molecular format of collagen on characteristics of electrospun fibres. Journal of Materials Science, 47(3), 1148–1155. https://doi.org/10.1007/s10853-011-5775-2 |
| Hong, Y., & Ying, T. (2019). Characterization of a chitin-glucan complex from the fruiting body of Termitomyces albuminosus (Berk.) Heim. International Journal of Biological Macromolecules, 134, 131–138. https://doi.org/10.1016/j.ijbiomac.2019.04.198 |
| Hou, Y., Shavandi, A., Carne, A., Bekhit, A. A., Ng, T. B., Cheung, R. C. F., & Bekhit, A. E.-D. A. (2016). Marine shells: Potential opportunities for extraction of functional and health-promoting materials. Critical Reviews in Environmental Science and Technology, 46(11–12), 1047–1116. https://doi.org/10.1080/10643389.2016.1202669 |
| Hu, K.-J., Hu, J.-L., Ho, K.-P., & Yeung, K.-W. (2004). Screening of fungi for chitosan producers, and copper adsorption capacity of fungal chitosan and chitosanaceous materials. Carbohydrate Polymers, 58(1), 45–52. https://doi.org/10.1016/j.carbpol.2004.06.015 |
| Huang, C.-Y., Kuo, C.-H., Wu, C.-H., Ku, M.-W., & Chen, P.-W. (2018). Extraction of crude chitosans from squid (Illex argentinus) pen by a compressional puffing-pretreatment process and evaluation of their antibacterial activity. Food Chemistry, 254, 217–223. https://doi.org/10.1016/j.foodchem.2018.02.018 |
| Huang, J., Wu, R., Liu, D., Liao, B. Q., Lei, M., Wang, M., Huan, R., Zhou, M. Y., Ma, C. B., & Hea, H. L. (2019). Mechanistic Insight into the Binding and Swelling Functions of Prepeptidase C-Terminal (PPC) Domains from Various Bacterial Proteases. Applied and Environmental Microbiology, 85(14), 1–19. https://doi.org/10.1128/AEM.00611-19 |
| Hughes, B. H., Greenberg, N. J., Yang, T. C., & Skonberg, D. I. (2015). Effects of Rigor Status during High-Pressure Processing on the Physical Qualities of Farm-Raised Abalone (Haliotis rufescens). Journal of Food Science, 80(1), C40–C48. https://doi.org/10.1111/1750-3841.12717 |
| Ibram, A., & Ionescu, A. M. (2019). Capitalizing of Marine Resources from the Black Sea by Preparation and Characterization of Chitosan Crab Pachygrapsus Mormoratus. Journal of Science and Arts, 3(48), 687–696. |
| Ilankovan, P., Hein, S., Ng, C.-H., Trung, T. S., & Stevens, W. F. (2006). Production of N-acetyl chitobiose from various chitin substrates using commercial enzymes. Carbohydrate Polymers, 63(2), 245–250. https://doi.org/10.1016/j.carbpol.2005.08.060 |
| Jackson‐Ricketts, J., Ruiz‐Cooley, R. I., Junchompoo, C., Thongsukdee, S., Intongkham, A., Ninwat, S., Kittiwattanawong, K., Hines, E. M., & Costa, D. P. (2019). Ontogenetic variation in diet and habitat of Irrawaddy dolphins ( Orcaella brevirostris ) in the Gulf of Thailand and the Andaman Sea. Marine Mammal Science, 35(2), 492–521. https://doi.org/10.1111/mms.12547 |
| Jadhav, U., & Pillai, A. (2011). Preparation and comparative study of chitosan from shells of different marine and freshwater prawns. Biosciences Biotechnology Research Asia, 8(2), 869–872. https://doi.org/10.13005/bbra/954 |
| Jaiswal, M., Chauhan, D., & Sankararamakrishnan, N. (2012). Copper chitosan nanocomposite: Synthesis, characterization, and application in removal of organophosphorous pesticide from agricultural runoff. Environmental Science and Pollution Research, 19(6), 2055–2062. https://doi.org/10.1007/s11356-011-0699-6 |
| Janesch, J., Jones, M., Bacher, M., Kontturi, E., Bismarck, A., & Mautner, A. (2020). Mushroom-derived chitosan-glucan nanopaper filters for the treatment of water. Reactive and Functional Polymers, 146. https://doi.org/10.1016/j.reactfunctpolym.2019.104428 |
| Jeong, G.-T. (2014). Production of levulinic acid from glucosamine by dilute-acid catalyzed hydrothermal process. Industrial Crops and Products, 62, 77–83. https://doi.org/10.1016/j.indcrop.2014.08.006 |
| Jeong, H.-S., Venkatesan, J., & Kim, S.-K. (2013). Isolation and characterization of collagen from marine fish (Thunnus obesus). Biotechnology and Bioprocess Engineering, 18(6), 1185–1191. https://doi.org/10.1007/s12257-013-0316-2 |
| Jiménez-Fernández, E., Ruyra, A., Roher, N., Zuasti, E., Infante, C., & Fernández-Díaz, C. (2014). Nanoparticles as a novel delivery system for vitamin C administration in aquaculture. Aquaculture, 432, 426–433. https://doi.org/10.1016/j.aquaculture.2014.03.006 |
| Jin, T., Liu, T., Jiang, S., Kurdyla, D., Klein, B. A., Michaelis, V. K., Lam, E., Li, J., & Moores, A. (2021). Chitosan nanocrystals synthesis: Via aging and application towards alginate hydrogels for sustainable drug release. Green Chemistry, 23(17), 6527–6537. https://doi.org/10.1039/d1gc01611c |
| Jones, M., Weiland, K., Kujundzic, M., Theiner, J., Kählig, H., Kontturi, E., John, S., Bismarck, A., & Mautner, A. (2019). Waste-Derived Low-Cost Mycelium Nanopapers with Tunable Mechanical and Surface Properties. Biomacromolecules, 20(9), 3513–3523. https://doi.org/10.1021/acs.biomac.9b00791 |
| Jørkov, M. L. S., & Gröcke, D. R. (2017). Investigating adult diet during Industrialization in Copenhagen based on stable isotope analysis of bone collagen and hair keratin. Archaeological and Anthropological Sciences, 9(7), 1327–1341. https://doi.org/10.1007/s12520-016-0373-5 |
| Kalitukha, L. (2021). An approach to change the basic polymer composition of the milled Fomes fomentarius fruiting bodies. Fungal Biology and Biotechnology, 8(1). https://doi.org/10.1186/s40694-021-00112-9 |
| Kamjan, S., Gillis, R. E., Çakirlar, C., & Raemaekers, D. C. M. (2020). Specialized cattle farming in the Neolithic Rhine-Meuse Delta: Results from zooarchaeological and stable isotope (δ18O, δ13C, δ15N) analyzes. PLoS ONE, 15(10 October). https://doi.org/10.1371/journal.pone.0240464 |
| Kaya, M., Baran, T., Asan-Ozusaglam, M., Cakmak, Y. S., Tozak, K. O., Mol, A., Mentes, A., & Sezen, G. (2015). Extraction and characterization of chitin and chitosan with antimicrobial and antioxidant activities from cosmopolitan Orthoptera species (Insecta). Biotechnology and Bioprocess Engineering, 20(1), 168–179. https://doi.org/10.1007/s12257-014-0391-z |
| Kim, D. S., & Park, B. Y. (2001). Effects on the removal of Pb2+ from aqueous solution by crab shell. Journal of Chemical Technology and Biotechnology, 76(11), 1179–1184. https://doi.org/10.1002/jctb.505 |
| Kim, J.-A., Karadeniz, F., Ahn, B.-N., Kwon, M. S., Mun, O.-J., Bae, M. J., Seo, Y., Kim, M., Lee, S.-H., Kim, Y. Y., Mi-Soon, J., & Kong, C.-S. (2016). Bioactive quinone derivatives from the marine brown alga Sargassum thunbergii induce anti-adipogenic and pro-osteoblastogenic activities. Journal of the Science of Food and Agriculture, 96(3), 783–790. https://doi.org/10.1002/jsfa.7148 |
| Kim, S.-K. (2014). Marine cosmeceuticals. Journal of Cosmetic Dermatology, 13(1), 56–67. https://doi.org/10.1111/jocd.12057 |
| Kim, T.-H., Heo, S.-Y., Oh, G.-W., Heo, S.-J., & Jung, W.-K. (2021). Applications of Marine Organism-Derived Polydeoxyribonucleotide: Its Potential in Biomedical Engineering. Marine Drugs, 19(6), 296. https://doi.org/10.3390/md19060296 |
| Kimura, S. (1971). Studies On Marine Invertebrate Collagens—Iv: Structural Difference In Collagens From Cuticle And Intestines of Neanthes Diversicolor. NIPPON SUISAN GAKKAISHI, 37(5), 432–440. https://doi.org/10.2331/suisan.37.432 |
| Kimura, S. (1971). Studies On Marine Invertebrate Collagens—III: Characterization of Cuticle Collagens In Annelids. NIPPON SUISAN GAKKAISHI, 37(5), 419–431. https://doi.org/10.2331/suisan.37.419 |
| Kimura, S. (1969). Studies on Marine Invertebrate Collagens--II. Molecular Properties of Soluble Cuticle Collagen from a Marine Worm, Nereis japonica. NIPPON SUISAN GAKKAISHI, 35(11), 1121–1130. https://doi.org/10.2331/suisan.35.1121 |
| Kimura, S. (1972). Studies on Marine Invertebrate Collagens—V: The Neutral Sugar Compositions and Glycosylated Hydroxylysine Contents of Several Collagens. NIPPON SUISAN GAKKAISHI, 38(10), 1153–1161. https://doi.org/10.2331/suisan.38.1153 |
| Kimura, S. (1973). Studies On Marine Invertebrate Collagens-VII: Galactose Mono- and Oligosaccharides from Neanthes Cuticle Collagen. NIPPON SUISAN GAKKAISHI, 39(3), 311–316. https://doi.org/10.2331/suisan.39.311 |
| Kimura, S., Nagaoka, Y., & Kubota, M. (1969). Studies on Marine Invertebrate Collagens—I. Some Collagens from Crustaceans and Molluscs. NIPPON SUISAN GAKKAISHI, 35(8), 743–748. https://doi.org/10.2331/suisan.35.743 |
| King, C. L., Petchey, P., Kinaston, R., Gröcke, D. R., Millard, A. R., Wanhalla, A., Brooking, T., Matisoo-Smith, E., & Buckley, H. R. (2021). A Land of Plenty? Colonial Diet in Rural New Zealand. Historical Archaeology, 55(2), 250–268. https://doi.org/10.1007/s41636-020-00276-y |
| Knorr, D. (1983). Dye Binding Properties of Chitin and Chitosan. Journal of Food Science, 48(1), 36–37. https://doi.org/10.1111/j.1365-2621.1983.tb14783.x |
| Koo, S. Y., Mok, I.-K., Pan, C.-H., & Kim, S. M. (2016). Preparation of Fucoxanthin-Loaded Nanoparticles Composed of Casein and Chitosan with Improved Fucoxanthin Bioavailability. Journal of Agricultural and Food Chemistry, 64(49), 9428–9435. https://doi.org/10.1021/acs.jafc.6b04376 |
| Kovaleva, E., Pestov, A., Stepanova, D., & Molochnikov, L. (2016). Characterization of chitin and its complexes extracted from natural raw sources. AIP Conference Proceedings, 1772. https://doi.org/10.1063/1.4964577 |
| Krajewska, B. (2005). Membrane-based processes performed with use of chitin/chitosan materials. Separation and Purification Technology, 41(3), 305–312. https://doi.org/10.1016/j.seppur.2004.03.019 |
| Krishnan, R. A., Deshmukh, P., Agarwal, S., Purohit, P., Dhoble, D., Waske, P., Khandekar, D., Jain, R., & Dandekar, P. (2016). Proton play in the formation of low molecular weight chitosan (LWCS) by hydrolyzing chitosan with a carbon based solid acid. Carbohydrate Polymers, 151, 417–425. https://doi.org/10.1016/j.carbpol.2016.05.082 |
| Kubota, M., Kimura, S., & Kobayashi, N. (1972). Studies on Marine Invertebrate Collagens—VI. Some Properties of Collagen from an Ascidian Halocynthia roretzi. NIPPON SUISAN GAKKAISHI, 38(10), 1163–1169. https://doi.org/10.2331/suisan.38.1163 |
| Kumar, S., Ye, F., Dobretsov, S., & Dutta, J. (2019). Chitosan nanocomposite coatings for food, paints, and water treatment applications. Applied Sciences (Switzerland), 9(12). https://doi.org/10.3390/app9122409 |
| Kumaran, S., Perianaika Anahas, A. M., Prasannabalaji, N., Karthiga, M., Bharathi, S., Rajasekar, T., Joseph, J., Prasad, S. G., Pandian, S., Pugazhvendan, S. R., Pugazhvendan, S. R., & Aruni, W. (2021). Chitin derivatives of NAG and chitosan nanoparticles from marine disposal yards and their use for economically feasible fish feed development. Chemosphere, 281. https://doi.org/10.1016/j.chemosphere.2021.130746 |
| Kumari, S., Rath, P., Sri Hari Kumar, A., & Tiwari, T. N. (2015). Extraction and characterization of chitin and chitosan from fishery waste by chemical method. Environmental Technology and Innovation, 3, 77–85. https://doi.org/10.1016/j.eti.2015.01.002 |
| Laaraibi, A., Charhouf, I., Bennamara, A., Abourriche, A., & Berrada, M. (2015). Valorization of marine wastes in a preserving film based on chitosan for food applications. Journal of Materials and Environmental Science, 6(12), 3511–3516. |
| Lahtinen, M., & Salmi, A.-K. (2019). Mixed Livelihood Society in Iin Hamina–a Case Study of Medieval Diet in the Northern Ostrobothnia, Finland. Environmental Archaeology, 24(1), 1–14. https://doi.org/10.1080/14614103.2018.1444695 |
| Landes, D. R., & Bough, W. A. (1976). Effects of chitosan-a coagulating agent for food processing wastes-in the diets of rats on growth and liver and blood composition. Bulletin of Environmental Contamination and Toxicology, 15(5), 555–563. https://doi.org/10.1007/BF01685704 |
| Lassoued, I., Hajji, S., Mhamdi, S., Jridi, M., Bayoudh, A., Barkia, A., & Nasri, M. (2015). Digestive alkaline proteases from thornback ray ( Raja clavata ): Characteristics and applications. International Journal of Biological Macromolecules, 80, 668–675. https://doi.org/10.1016/j.ijbiomac.2015.07.038 |
| Lassoued, I., Mora, L., Barkia, A., Aristoy, M. C., Nasri, M., & Toldrá, F. (2015). Bioactive peptides identified in thornback ray skin’s gelatin hydrolysates by proteases from Bacillus subtilis and Bacillus amyloliquefaciens. Journal of Proteomics, 128, 8–17. https://doi.org/10.1016/J.JPROT.2015.06.016 |
| LeCorre-Bordes, D. S., Jaksons, P., & Hofman, K. (2017). Mind the gap: Ensuring laboratory-scale testing of an electrospinning product meets commercial-scale needs. Journal of Applied Polymer Science, 134(20). https://doi.org/10.1002/app.44836 |
| Lee, C. M., Barrow, C. J., Kim, S.-K., Miyashita, K., & Shahidi, F. (2011). Global trends in marine nutraceuticals. Food Technology, 65(12), 22–31. |
| Leone, A., Lecci, R. M., Milisenda, G., & Piraino, S. (2019). Mediterranean jellyfish as novel food: effects of thermal processing on antioxidant, phenolic, and protein contents. European Food Research and Technology, 245(8), 1611–1627. https://doi.org/10.1007/s00217-019-03248-6 |
| Lertsutthiwong, P., Sutti, S., & Powtongsook, S. (2009). Optimization of chitosan flocculation for phytoplankton removal in shrimp culture ponds. Aquacultural Engineering, 41(3), 188–193. https://doi.org/10.1016/j.aquaeng.2009.07.006 |
| Li, J., Gao, K., Secundo, F., & Mao, X. (2021). Biochemical characterization of two β-N-acetylglucosaminidases from Streptomyces violascens for efficient production of N-acetyl-d-glucosamine. Food Chemistry, 364, 130393. https://doi.org/10.1016/j.foodchem.2021.130393 |
| Li, R. K., Hu, Y. J., He, Y. J., Ng, T. B., Zhou, Z. M., & Ye, X. Y. (2021). A thermophilic chitinase 1602 from the marine bacterium Microbulbifer sp. BN3 and its high-level expression in Pichia pastoris. Biotechnology and Applied Biochemistry, 68(5), 1076–1085. https://doi.org/10.1002/bab.2027 |
| Li, X.-X., Tian, X., Cai, L.-Y., Lv, Y.-F., Liu, X.-F., & Li, J.-R. (2017). Effects of Chitosan and Hawthorn Flavonoid Coating on Quality and Shelf Life of Flounder (Paralichthys olivaceus) Fillets During Refrigerated Storage. Journal of Food Processing and Preservation, 41(2). https://doi.org/10.1111/jfpp.12831 |
| Liang, T.-W., Hsieh, J.-L., & Wang, S.-L. (2012). Production and purification of a protease, a chitosanase, and chitin oligosaccharides by Bacillus cereus TKU022 fermentation. Carbohydrate Research, 362, 38–46. https://doi.org/10.1016/j.carres.2012.08.004 |
| Lin, F., Rong, H., Lin, J., Yuan, Y., Yu, J., Yu, C., You, C., Wang, S., Sun, Z., & Wen, X. (2020). Enhancement of collagen deposition in swim bladder of Chu’s croaker (Nibea coibor) by proline: View from in-vitro and in-vivo study. Aquaculture, 523. https://doi.org/10.1016/j.aquaculture.2020.735175 |
| Liu, C., Shen, N., Wu, J., Jiang, M., Shi, S., Wang, J., Wei, Y., & Yang, L. (2020). Cloning, expression and characterization of a chitinase from Paenibacillus chitinolyticus strain UMBR 0002. PeerJ, 8, e8964. https://doi.org/10.7717/peerj.8964 |
| Liu, D., Huang, J., Wu, C., Liu, C., Huang, R., Wang, W., Yin, T., Yan, X., He, H., & Chen, L. (2019). Purification, characterization, and application for preparation of antioxidant peptides of extracellular protease from Pseudoalteromonas sp. H2. Molecules, 24(18). https://doi.org/10.3390/molecules24183373 |
| Liu, H., Duan, W.-D., de Souza, F., Liu, L., & Chen, B.-S. (2018). Asymmetric Ketone Reduction by Immobilized Rhodotorula mucilaginosa. Catalysts, 8(4), 165. https://doi.org/10.3390/catal8040165 |
| Liu, S., Lu, Y., Kurono, M., Matahira, Y., Manabe, Y., & Sugawara, T. (2022). Oral supplementation of sea cucumber and its hydrolysate mitigates ultraviolet A-induced photoaging in hairless mice. Journal of the Science of Food and Agriculture, 102(5), 1987–1994. https://doi.org/10.1002/jsfa.11537 |
| Lødemel, J. B., & Olsen, R. L. (2003). Gelatinolytic activities in muscle of Atlantic cod (Gadus morhua), spotted wolffish (Anarhichas minor) and Atlantic salmon (Salmo salar). Journal of the Science of Food and Agriculture, 83(10), 1031–1036. https://doi.org/10.1002/jsfa.1501 |
| Long, A. J., Addy, V. L., & Loftus, R. (2007). Extraction of dna from leather and applications to the supply chain. Journal of the American Leather Chemists Association, 102(1), 22–26. |
| Longo, L., Boaretto, E., Caramelli, D., Giunti, P., Lari, M., Milani, L., Mannino, M. A., Sala, B., Thun Hohenstein, U., & Condemi, S. (2012). Did Neandertals and anatomically modern humans coexist in northern Italy during the late MIS 3? Quaternary International, 259, 102–112. https://doi.org/10.1016/j.quaint.2011.08.008 |
| Lopes, C., Antelo, L. T., Franco-Uría, A., Alonso, A. A., & Pérez-Martín, R. (2018). Chitin production from crustacean biomass: Sustainability assessment of chemical and enzymatic processes. Journal of Cleaner Production, 172, 4140–4151. https://doi.org/10.1016/j.jclepro.2017.01.082 |
| Lopez, N., Athira, P. N., Ajeesh, P., Nair, A. S., Ankitha, L., & Anupriya, U. (2017). Pharmacology and bio-medicinal properties of chitin and its derivative. Journal of Pharmaceutical Sciences and Research, 9(6), 857–859. |
| López-Senra, E., Casal-Beiroa, P., López-Álvarez, M., Serra, J., González, P., Valcarcel, J., Vázquez, J. A., Burguera, E. F., Blanco, F. J., & Magalhães, J. (2020). Impact of prevalence ratios of chondroitin sulfate (CS)- 4 and -6 isomers derived from marine sources in cell proliferation and chondrogenic differentiation processes. Marine Drugs, 18(2). https://doi.org/10.3390/md18020094 |
| Luo, J., Monroig, Ó., Zhou, Q., Tocher, D. R., Yuan, Y., Zhu, T., Lu, J., Song, D., Jiao, L., & Jin, M. (2021). Environmental salinity and dietary lipid nutrition strategy: Effects on flesh quality of the marine euryhaline crab Scylla paramamosain. Food Chemistry, 361. https://doi.org/10.1016/j.foodchem.2021.130160 |
| Luo, L., Zhang, Q., Kong, X., Huang, H., & Ke, C. (2017). Differential effects of bisphenol A toxicity on oyster (Crassostrea angulata) gonads as revealed by label-free quantitative proteomics. Chemosphere, 176, 305–314. https://doi.org/10.1016/j.chemosphere.2017.02.146 |
| Machałowski, T., Czajka, M., Petrenko, I., Meissner, H., Schimpf, C., Rafaja, D., Ziętek, J., Dzięgiel, B., Adaszek, Ł., Voronkina, A., Kovalchuk, V., Jaroszewicz, J., Fursov, A., Rahimi-Nasrabadi, M., Stawski, D., Bechmann, N., Jesionowski, T., & Ehrlich, H. (2020). Functionalization of 3D Chitinous Skeletal Scaffolds of Sponge Origin Using Silver Nanoparticles and Their Antibacterial Properties. Marine Drugs, 18(6), 304. https://doi.org/10.3390/md18060304 |
| Maeda, H., Hosomi, R., Chiba, U., & Fukunaga, K. (2013). Chemical composition of salmon ovary outer membrane and its protein increases fecal mucins content in c57bl/6j and type 2 diabetic/obese kk-ay mice. Foods, 2(3), 415–429. https://doi.org/10.3390/foods2030415 |
| Magnacca, G., Guerretta, F., Vizintin, A., Benzi, P., Valsania, M. C., & Nisticò, R. (2018). Preparation, characterization and environmental/electrochemical energy storage testing of low-cost biochar from natural chitin obtained via pyrolysis at mild conditions. Applied Surface Science, 427, 883–893. https://doi.org/10.1016/j.apsusc.2017.07.277 |
| Malerba, M., Crosti, P., & Cerana, R. (2012). Defense/stress responses activated by chitosan in sycamore cultured cells. Protoplasma, 249(1), 89–98. https://doi.org/10.1007/s00709-011-0264-7 |
| Manchinasetty, N. V. L., Oshima, S., & Kikuchi, M. (2017). Preparation of flexible bone tissue scaffold utilizing sea urchin test and collagen. Journal of Materials Science: Materials in Medicine, 28(11). https://doi.org/10.1007/s10856-017-5993-5 |
| Manni, L., Ghorbel-Bellaaj, O., Jellouli, K., Younes, I., & Nasri, M. (2010). Extraction and characterization of chitin, chitosan, and protein hydrolysates prepared from shrimp waste by treatment with crude protease from bacillus cereus SV1. Applied Biochemistry and Biotechnology, 162(2), 345–357. https://doi.org/10.1007/s12010-009-8846-y |
| Mathew, G. M., Puthiyamadam, A., Sasikumar, K., Ashoor, S., & Sukumaran, R. K. (2021). Biological treatment of prawn shell wastes for valorization and waste management. Bioresource Technology Reports, 15. https://doi.org/10.1016/j.biteb.2021.100788 |
| Mathew, G. M., Sukumaran, R. K., Sindhu, R., Binod, P., & Pandey, A. (2021). Green remediation of the potential hazardous shellfish wastes generated from the processing industries and their bioprospecting. Environmental Technology & Innovation, 24, 101979. https://doi.org/10.1016/j.eti.2021.101979 |
| Mathew, S., Tejpal, C. S., Kumar, L. R. G., Zynudheen, A. A., & Ravishankar, C. N. (2017). Aquaceuticals for developing high value noble foods and dietary supplements. Indian Journal of Agricultural Biochemistry, 30(1), 1–9. https://doi.org/10.5958/0974-4479.2017.00001.6 |
| Maulani, D., Nofianti, K., Sugijanto, N., & Kartosentono, S. (2021). An Eco-Friendly Absorption Method of Cu2+, Cd2+, and Pb2+ Using the Shells and Chitosan Derived from Solen vagina. Journal of Ecological Engineering, 22(7), 212–222. https://doi.org/10.12911/22998993/139118 |
| Mayorova, A. V., Sysuev, B. B., Ivankova, J. O., & Hanalieva, I. A. (2019). Collagenases in medical practice: Modern collagenase-based preparations and prospects for their improvement. Farmatsiya i Farmakologiya, 7(5), 260–270. https://doi.org/10.19163/2307-9266-2019-7-5-260-270 |
| McKay, G., Blair, H. S., & Grant, S. (1987). Desorption of copper from a copper‐chitosan complex. Journal of Chemical Technology &amp; Biotechnology, 40(1), 63–74. https://doi.org/10.1002/jctb.280400107 |
| Mehra, R. H., & Mehra, A. R. (1994). Chitin and chitosan. Colourage, 41(1), 59. |
| Melotti, L., Martinello, T., Perazzi, A., Iacopetti, I., Ferrario, C., Sugni, M., Sacchetto, R., & Patruno, M. (2021). A Prototype Skin Substitute, Made of Recycled Marine Collagen, Improves the Skin Regeneration of Sheep. Animals, 11(5), 1219. https://doi.org/10.3390/ani11051219 |
| Meng, X., Tan, Y., Yang, W., Rbbani, G., Yan, X., Fang, L., & Huo, Z. (2019). Gonad Status and Gene Expression of the Manila Clam Ruditapes philippinarum Infected by a Digenetic Trematode. Journal of Shellfish Research, 38(2), 271–278. https://doi.org/10.2983/035.038.0207 |
| Menghiu, G., Ostafe, V., Prodanović, R., Fischer, R., & Ostafe, R. (2021). A high‐throughput screening system based on fluorescence‐activated cell sorting for the directed evolution of chitinase a. International Journal of Molecular Sciences, 22(6), 1–15. https://doi.org/10.3390/ijms22063041 |
| Merquiol, L., Romano, G., Ianora, A., & D’Ambra, I. (2019). Biotechnological applications of scyphomedusae. Marine Drugs, 17(11). https://doi.org/10.3390/md17110604 |
| Merz, C. R. (2019). Physicochemical and Colligative Investigation of α (Shrimp Shell)- And β (Squid Pen)-Chitosan Membranes: Concentration-Gradient-Driven Water Flux and Ion Transport for Salinity Gradient Power and Separation Process Operations. ACS Omega, 4(25), 21027–21040. https://doi.org/10.1021/acsomega.9b02357 |
| Mittal, A., Singh, A., Aluko, R. E., & Benjakul, S. (2021). Pacific white shrimp (Litopenaeus vannamei) shell chitosan and the conjugate with epigallocatechin gallate: Antioxidative and antimicrobial activities. Journal of Food Biochemistry, 45(1). https://doi.org/10.1111/jfbc.13569 |
| Miyahara, M., Nagasawa, T., Akiyama, S., Kobayashi, Y., Mashimizu, T., & Maitani, T. (2004). ESR method for the detection of irradiated unboned meats and seafood. Journal of Health Science, 50(5), 542–544. https://doi.org/10.1248/jhs.50.542 |
| Mizuta, S., Nakanishi, Y., Shiraishi, M., Yokoyama, Y., & Yoshinaka, R. (2007). Properties of scallop mantle collagen: Its content, tissue distribution and thermal behavior. Fisheries Science, 73(6), 1353–1361. https://doi.org/10.1111/j.1444-2906.2007.01478.x |
| Mizuta, S., Yoshinaka, R., Sato, M., & Sakaguchi, M. (1994). Characterization of Collagen in the Muscle of Several Crustacean Species in Association with Raw Meat Texture. Fisheries Science, 60(3), 323–328. https://doi.org/10.2331/fishsci.60.323 |
| Mochida, K., Ito, K., Ito, M., Hano, T., & Ohkubo, N. (2018). Toxicity of the biocide polycarbamate, used for aquaculture nets, to some marine fish species. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 214, 61–67. https://doi.org/10.1016/j.cbpc.2018.09.001 |
| Mohanasrinivasan, V., Mishra, M., Paliwal, J. S., Singh, S. K., Selvarajan, E., Suganthi, V., & Subathra Devi, C. (2014). Studies on heavy metal removal efficiency and antibacterial activity of chitosan prepared from shrimp shell waste. 3 Biotech, 4(2), 167–175. https://doi.org/10.1007/s13205-013-0140-6 |
| Mondaca‐Navarro, B. A., Torres‐Arreola, W., Ávila‐Villa, L. A., Villa‐Lerma, A. G., Hernández‐Mendoza, A., Wall‐Medrano, A., & Ramírez, R. R. (2020). Obtaining glycoconjugates of marine origin via Maillard reaction and their cytotoxic effect: an alternative for the use of animal byproducts. Journal of the Science of Food and Agriculture, 100(7), 3228–3235. https://doi.org/10.1002/jsfa.10359 |
| Moreno-Sader, K. A., Martinez-Consuegra, J. D., & González-Delgado, Á. D. (2021). Development of a biorefinery approach for shrimp processing in North-Colombia: Process simulation and sustainability assessment. Environmental Technology & Innovation, 22, 101461. https://doi.org/10.1016/j.eti.2021.101461 |
| Morganti, P. (2015). Innovative and sustainable bio-polymers for household and beauty care products. Final results of the EU BIO-MIMETIC Project. Journal of Applied Cosmetology, 33(1–2), 67–84. |
| Morganti, P. (2016). New horizon in cosmetic dermatology. Journal of Applied Cosmetology, 34(1–2), 15–24. |
| Morganti, P., Palombo, M., Carezzi, F., Nunziata, M. L., Morganti, G., Cardillo, M., & Chianese, A. (2016). Green nanotechnology serving the bioeconomy: Natural beauty masks to save the environment. Cosmetics, 3(4). https://doi.org/10.3390/cosmetics3040041 |
| Morganti, P., Yuanhong, L., & Morganti, G. (2007). Nano-structured products: Technology and future. Journal of Applied Cosmetology, 25(4), 161–178. |
| Morrison, C. M., Dial, S. M., Day Jr., W. A., & Joens, L. A. (2012). Investigations of Salmonella enterica serovar newport infections of oysters by using immunohistochemistry and knockout mutagenesis. Applied and Environmental Microbiology, 78(8), 2867–2873. https://doi.org/10.1128/AEM.07456-11 |
| Mushi, N. E., Kochumalayil, J., Cervin, N. T., Zhou, Q., & Berglund, L. A. (2016). Nanostructurally Controlled Hydrogel Based on Small-Diameter Native Chitin Nanofibers: Preparation, Structure, and Properties. ChemSusChem, 9(9), 989–995. https://doi.org/10.1002/cssc.201501697 |
| Muthukumar, T., Prakash, D., Anbarasu, K., Kumar, B. S., & Sastry, T. P. (2014). Effect of collagen sponge incorporating Macrotyloma uniflorum extract on full-thickness wound healing by down-regulation of matrix metalloproteinases and inflammatory markers. RSC Advances, 4(109), 64267–64276. https://doi.org/10.1039/c4ra11959b |
| Muthukumar, T., Sreekumar, G., Sastry, T. P., & Chamundeeswari, M. (2018). Collagen as a potential biomaterial in biomedical applications. Reviews on Advanced Materials Science, 53(1), 29–39. https://doi.org/10.1515/rams-2018-0002 |
| Muthumari, K., Anand, M., & Maruthupandy, M. (2016). Collagen Extract from Marine Finfish Scales as a Potential Mosquito Larvicide. Protein Journal, 35(6), 391–400. https://doi.org/10.1007/s10930-016-9685-7 |
| Namboodiri, M. M. T., & Pakshirajan, K. (2019). Sustainable and green approach of chitosan production from Penicillium citrinum biomass using industrial wastewater as a cheap substrate. Journal of Environmental Management, 240, 431–440. https://doi.org/10.1016/j.jenvman.2019.03.085 |
| Namjou, F., Yeganeh, S., Madani, R., & Ouraji, H. (2019). Extraction, purification, and characterization of trypsin obtained from the digestive system of yellowfin seabream (acanthopagrus latus) | Extraction, purification et caractérisation de la trypsine obtenue à partir du système digestif du pagre à nageoires. Archives of Razi Institute, 74(4), 405–411. |
| Naumann, E., Price, T. D., & Richards, M. P. (2014). Changes in dietary practices and social organization during the pivotal late iron age period in Norway (AD 550-1030): Isotope analyzes of merovingian and viking age human remains. American Journal of Physical Anthropology, 155(3), 322–331. https://doi.org/10.1002/ajpa.22551 |
| Negreanu-Pirjol, T., Negreanu-Pirjol, B., Sirbu, R., Paraschiv, G. M., & Meghea, A. (2012). Comparative studies regarding the antioxidative activity of some therapeutic marine algae species along the Romanian Black Sea coast. Journal of Environmental Protection and Ecology, 13(3 A), 1744–1750. |
| Nessa, F., Khan, S. A., & Al Khatib, F. M. A. (2010). Production and characterization of chitosan from shrimp (Penaeus semisulcatus) shell waste of UAE. Pakistan Journal of Scientific and Industrial Research, 53(1), 52–58. |
| Nickel, M., & Brümmer, F. (2003). In vitro sponge fragment culture of Chondrosia reniformis (Nardo, 1847). Journal of Biotechnology, 100(2), 147–159. https://doi.org/10.1016/S0168-1656(02)00256-0 |
| Nishimoto, M., Mizuta, S., Yoshinaka, R., Park, E. Y., Nakamura, Y., & Sato, K. (2009). Characterization and Comparison of Collagens Extracted from the Digestive Tract and Skin of a Japanese Amberjack Seriola Quinqueradiata. Journal of Food Biochemistry, 33(6), 777–789. https://doi.org/10.1111/j.1745-4514.2009.00250.x |
| Nunes, C., Maricato, É., Cunha, Â., Rocha, M. A. M., Santos, S., Ferreira, P., Silva, M. A., Rodrigues, A., Amado, O., Coimbra, J., Silva, D., Moreira, A., Mendo, S., Lopes da Silva, J. A., Pereira, E., Rocha, S. M., & Coimbra, M. A. (2016). Chitosan–genipin film, a sustainable methodology for wine preservation. Green Chemistry, 18(19), 5331–5341. https://doi.org/10.1039/C6GC01621A |
| Nye, J. W., Zangrando, A. F. J., Martinoli, M. P., & Fogel, M. L. (2020). Temporal and population trends in human exploited pinnipeds from Tierra del Fuego. Palaeogeography, Palaeoclimatology, Palaeoecology, 554. https://doi.org/10.1016/j.palaeo.2020.109804 |
| Oguntimein, G. B., Animashaun, O., & Okpere, I. (2009). Application of chitosan in remediation of dyes. Proceedings of the 2007 National Conference on Environmental Science and Technology, 319–324. https://doi.org/10.1007/978-0-387-88483-7\_43 |
| Ohshima, T. (1996). By-Products and Seafood Production in Japan. Journal of Aquatic Food Product Technology, 5(4), 27–42. https://doi.org/10.1300/J030v05n04\_04 |
| Ólafsdóttir, G. Á., Edvardsson, R., Timsic, S., Harrison, R., & Patterson, W. P. (2021). A millennium of trophic stability in Atlantic cod (Gadus morhua): transition to a lower and converging trophic niche in modern times. Scientific Reports, 11(1), 12681. https://doi.org/10.1038/s41598-021-92243-7 |
| Olden, J. D., Vitule, J. R. S., Cucherousset, J., & Kennard, M. J. (2020). There’s more to Fish than Just Food: Exploring the Diverse Ways that Fish Contribute to Human Society. Fisheries, 45(9), 453–464. https://doi.org/10.1002/fsh.10443 |
| Omidinasab, M., Rahbar, N., Ahmadi, M., Kakavandi, B., Ghanbari, F., Kyzas, G. Z., Martinez, S. S., & Jaafarzadeh, N. (2018). Removal of vanadium and palladium ions by adsorption onto magnetic chitosan nanoparticles. Environmental Science and Pollution Research, 25(34), 34262–34276. https://doi.org/10.1007/s11356-018-3137-1 |
| Osuna-Amarillas, P. S., Márquez-Ríos, E., Rouzaud-Sandez, O., Suarez-Jiménez, G. M., Cota-Arriola, O., Ocaño-Higuera, V. M., Arvizu-Flores, A. A., & Torres-Arreola, W. (2017). Physicochemical Changes of Connective Tissue Proteins in Jumbo Squid (Dosidicus gigas) Muscle During Ice Storage. Journal of Food Processing and Preservation, 41(1). https://doi.org/10.1111/jfpp.12794 |
| Pachapur, V. L., Guemiza, K., Rouissi, T., Sarma, S. J., & Brar, S. K. (2016). Novel biological and chemical methods of chitin extraction from crustacean waste using saline water. Journal of Chemical Technology and Biotechnology, 91(8), 2331–2339. https://doi.org/10.1002/jctb.4821 |
| Pacheco, N., Garnica-Gonzalez, M., Gimeno, M., Bárzana, E., Trombotto, S., David, L., & Shirai, K. (2011). Structural characterization of chitin and chitosan obtained by biological and chemical methods. Biomacromolecules, 12(9), 3285–3290. https://doi.org/10.1021/bm200750t |
| Paduretu, C.-C., Apetroaei, M. R., Apetroaei, G. M., Atodiresei, D. V., & Rau, I. (2020). Dyes adsorption by using different types of chitosan for decontamination of cleaning waters from chemical carriers. Journal of Environmental Protection and Ecology, 21(1), 28–36. |
| Pădurețu, C.-C., Apetroaei, M. R., Rǎu, I., & Schroder, V. (2018). Characterization of chitosan extracted from different romanian black sea crustaceans. UPB Scientific Bulletin, Series B: Chemistry and Materials Science, 80(3), 13–24. |
| Pal, G. K., & Suresh, P. V. (2016). Sustainable valorisation of seafood by-products: Recovery of collagen and development of collagen-based novel functional food ingredients. Innovative Food Science and Emerging Technologies, 37(Part B), 201–215. https://doi.org/10.1016/j.ifset.2016.03.015 |
| Pal, G. K., Nidheesh, T., & Suresh, P. V. (2015). Comparative study on characteristics and in vitro fibril formation ability of acid and pepsin soluble collagen from the skin of catla (Catla catla) and rohu (Labeo rohita). Food Research International, 76, 804–812. https://doi.org/10.1016/J.FOODRES.2015.07.018 |
| Pallavi, K., Vejandla, R. S., & Srinivasa Babu, P. (2017). Biomass derived polymers from ecowaste. Pharma Times, 49(12), 14–17. |
| Pallela, R., Bojja, S., & Janapala, V. R. (2011). Biochemical and biophysical characterization of collagens of marine sponge, Ircinia fusca (Porifera: Demospongiae: Irciniidae). International Journal of Biological Macromolecules, 49(1), 85–92. https://doi.org/10.1016/j.ijbiomac.2011.03.019 |
| Palma, G., Casals, P., & Cardenas, G. (2005). Synthesis and characterization of new chitosan-O-ethyl phosphonate. Journal of the Chilean Chemical Society, 50(4), 719–724. https://doi.org/10.4067/s0717-97072005000400013 |
| Paradiso, F., Fitzgerald, J., Yao, S., Barry, F., Taraballi, F., Gonzalez, D., Conlan, R. S., & Francis, L. (2019). Marine Collagen Substrates for 2D and 3D Ovarian Cancer Cell Systems. Frontiers in Bioengineering and Biotechnology, 7. https://doi.org/10.3389/fbioe.2019.00343 |
| Park, M.-R., Kim, S.-K., & Jeong, G.-T. (2018). Production of levulinic acid from glucosamine using zirconium oxychloride. Journal of Industrial and Engineering Chemistry, 61, 119–123. https://doi.org/10.1016/j.jiec.2017.12.008 |
| Pati, S., Sarkar, T., Sheikh, H. I., Bharadwaj, K. K., Mohapatra, P. K., Chatterji, A., Dash, B. P., Edinur, H. A., & Nelson, B. R. (2021). γ-Irradiated Chitosan From Carcinoscorpius rotundicauda (Latreille, 1802) Improves the Shelf Life of Refrigerated Aquatic Products. Frontiers in Marine Science, 8. https://doi.org/10.3389/fmars.2021.664961 |
| Paul, T., Halder, S. K., Das, A., Ghosh, K., Mandal, A., Payra, P., Barman, P., Das Mohapatra, P. K., Pati, B. R., & Mondal, K. C. (2015). Production of chitin and bioactive materials from Black tiger shrimp (Penaeus monodon) shell waste by the treatment of bacterial protease cocktail. 3 Biotech, 5(4), 483–493. https://doi.org/10.1007/s13205-014-0245-6 |
| Pawaskar, G. M., Pangannaya, S., Raval, K., Trivedi, D. R., & Raval, R. (2019). Screening of chitin deacetylase producing microbes from marine source using a novel receptor on agar plate. International Journal of Biological Macromolecules, 131, 716–720. https://doi.org/10.1016/j.ijbiomac.2019.03.118 |
| Peng, Y.-C., Yang, F.-L., Subeq, Y.-M., Tien, C.-C., & Lee, R.-P. (2017). Freshwater clam extract supplementation improves wound healing by decreasing the tumor necrosis factor α level in blood. Journal of the Science of Food and Agriculture, 97(4), 1193–1199. https://doi.org/10.1002/jsfa.7849 |
| Perini, N., Mercuri, F., Thaller, M. C., Orlanducci, S., Castiello, D., Talarico, V., & Migliore, L. (2019). The stain of the original salt: Red heats on chrome tanned leathers and Purple spots on ancient parchments are two sides of the same ecological coin. Frontiers in Microbiology, 10(OCT). https://doi.org/10.3389/fmicb.2019.02459 |
| Pestle, W. J. (2013). Fishing Down a Prehistoric Caribbean Marine Food Web: Isotopic Evidence From Punta Candelero, Puerto Rico. The Journal of Island and Coastal Archaeology, 8(2), 228–254. https://doi.org/10.1080/15564894.2013.797943 |
| Phuong, P. T. D., Trung, T. S., Stevens, W. F., Minh, N. C., Bao, H. N. D., & Hoa, N. V. (2021). Valorization of Heavy Waste of Modern Intensive Shrimp Farming as a Potential Source for Chitin and Chitosan Production. Waste and Biomass Valorization, 13(2), 823–830. https://doi.org/10.1007/s12649-021-01557-0 |
| Piazzon, M. C., Mladineo, I., Dirks, R. P., Santidrián Yebra-Pimentel, E., Hrabar, J., & Sitjà-Bobadilla, A. (2021). Ceratothoa oestroides Infection in European Sea Bass: Revealing a Long Misunderstood Relationship. Frontiers in Immunology, 12. https://doi.org/10.3389/fimmu.2021.645607 |
| Platania, V., Douglas, T. E. L., Zubko, M. K., Ward, D., Pietryga, K., & Chatzinikolaidou, M. (2021). Phloroglucinol-enhanced whey protein isolate hydrogels with antimicrobial activity for tissue engineering. Materials Science and Engineering C, 129. https://doi.org/10.1016/j.msec.2021.112412 |
| Portier, R. J., Fujisaki, K., Reily, L. A., & Henry, C. B. (1987). DETOXIFICATION OF CONTAMINATED GROUNDWATERS USING A MARINE POLYSACCHARIDE/DIATOMACEOUS EARTH PACKED BED BIOLOGICAL REACTOR. Oceans Conference Record (IEEE), 1709–1712. https://doi.org/10.1109/oceans.1987.1160613 |
| Prieto, L., Enrique-Navarro, A., Li Volsi, R., & Ortega, M. (2018). The Large Jellyfish Rhizostoma luteum as Sustainable a Resource for Antioxidant Properties, Nutraceutical Value and Biomedical Applications. Marine Drugs, 16(10), 396. https://doi.org/10.3390/md16100396 |
| Puccini, M., Stefanelli, E., Seggiani, M., Balestri, E., & Vitolo, S. (2017). Biodegradability of polyethylene/hydrolyzed collagen blends in terrestrial and marine environmental conditions. Journal of Renewable Materials, 5(1), 117–123. https://doi.org/10.7569/JRM.2017.634138 |
| Rahali, A., Riazi, A., Moussaoui, B., Boucherdoud, A., & Bektaş, N. (2020). Decolourisation of methylene blue and congo red dye solutions by adsorption using chitosan. Desalination and Water Treatment, 198, 422–433. https://doi.org/10.5004/dwt.2020.26093 |
| Rahayu, A. P., Sulmartiwi, L., & Kurnia, K. A. (2021). Overview of the Impact of Different Concentration of Acid Solutions in the Production of Adsorbents from Shrimp Waste and the Capacity to Eliminate Textile Colours. IOP Conference Series: Earth and Environmental Science, 718(1). https://doi.org/10.1088/1755-1315/718/1/012081 |
| Rashid, T. U., Rahman, M. M., Kabir, S., Shamsuddin, S. M., & Khan, M. A. (2012). A new approach for the preparation of chitosan from γ-irradiation of prawn shell: Effects of radiation on the characteristics of chitosan. Polymer International, 61(8), 1302–1308. https://doi.org/10.1002/pi.4207 |
| Rastian, Z., Pütz, S., Wang, Y., Kumar, S., Fleissner, F., Weidner, T., & Parekh, S. H. (2018). Type I Collagen from Jellyfish Catostylus mosaicus for Biomaterial Applications. ACS Biomaterials Science and Engineering, 4(6), 2115–2125. https://doi.org/10.1021/acsbiomaterials.7b00979 |
| Ren, S., Li, J., & Guan, H. (2010). The antioxidant effects of complexes of tilapia fish skin collagen and different marine oligosaccharides. Journal of Ocean University of China, 9(4), 399–407. https://doi.org/10.1007/s11802-010-1766-1 |
| Rethinam, S., Nivedita, P., Hemalatha, T., Vedakumari, S. W., & Sastry, T. P. (2016). A possible wound dressing material from marine food waste. International Journal of Artificial Organs, 39(10), 509–517. https://doi.org/10.5301/ijao.5000531 |
| Rissouli, L., Benicha, M., & Chabbi, M. (2016). Contribution to the elimination of Linuron by the adsorption process using Chitin and Chitosan biopolymers. Journal of Materials and Environmental Science, 7(2), 531–540. |
| Rizzi, V., Gubitosa, J., Fini, P., Romita, R., Nuzzo, S., & Cosma, P. (2019). Chitosan biopolymer from crab shell as recyclable film to remove/recover in batch ketoprofen from water: Understanding the factors affecting the adsorption process. Materials, 12(23). https://doi.org/10.3390/ma122333810 |
| Rodrigues, A. S. L., Charpentier, A., Bernal-Casasola, D., Gardeisen, A., Nores, C., Millán, J. A. P., McGrath, K., & Speller, C. F. (2018). Forgotten Mediterranean calving grounds of grey and North Atlantic right whales: evidence from Roman archaeological records. Proceedings of the Royal Society B: Biological Sciences, 285(1882). https://doi.org/10.1098/rspb.2018.0961 |
| Rodríguez, F., Morán, L., González, G., Troncoso, E., & Zúñiga, R. N. (2017). Collagen extraction from mussel byssus: a new marine collagen source with physicochemical properties of industrial interest. Journal of Food Science and Technology, 54(5), 1228–1238. https://doi.org/10.1007/s13197-017-2566-z |
| Rumengan, I. F. M., Suptijah, P., Wullur, S., & Talumepa, A. (2017). Characterization of chitin extracted from fish scales of marine fish species purchased from local markets in North Sulawesi, Indonesia. IOP Conference Series: Earth and Environmental Science, 89, 012028. https://doi.org/10.1088/1755-1315/89/1/012028 |
| Salazar-Leyva, J. A., Lizardi-Mendoza, J., Ramirez-Suarez, J. C., Valenzuela-Soto, E. M., Ezquerra-Brauer, J. M., Castillo-Yañez, F. J., & Pacheco-Aguilar, R. (2013). Acidic proteases from monterey sardine (Sardinops sagax caerulea) Immobilized on shrimp waste chitin and chitosan supports: Searching for a by-product catalytic system. Applied Biochemistry and Biotechnology, 171(3), 795–805. https://doi.org/10.1007/s12010-013-0407-8 |
| Samuel, M. P., Kalpana Sastry, R., & Pavani, S. (2018). A strategic framework for technology valuation in agriculture and allied sectors in India – Case study of Chitosan. Journal of Intellectual Property Rights, 23(2–3), 131–140. |
| Sánchez-Duarte, R. G., Sánchez-Machado, D. I., López-Cervantes, J., & Correa-Murrieta, M. A. (2012). Adsorption of allura red dye by cross-linked chitosan from shrimp waste. Water Science and Technology, 65(4), 618–623. https://doi.org/10.2166/wst.2012.900 |
| Sandalkhan, L., & Ersoz, E. (2019). Learning Environmental Sustainability by Experiments: Using Chitosan in Plant Growth. The Future of Education 9th Edition 2019, 513–517. |
| Santhosh, S., & Mathew, P. T. (2008). Preparation and properties of glucosamine and carboxymethylchitin from shrimp shell. Journal of Applied Polymer Science, 107(1), 280–285. https://doi.org/10.1002/app.27083 |
| Sanz, B., Sanchez, A. A., Tangey, B., Gilmore, K., Yue, Z., Liu, X., & Wallace, G. (2021). Light cross-linkable marine collagen for coaxial printing of a 3D model of neuromuscular junction formation. Biomedicines, 9(1), 1–19. https://doi.org/10.3390/biomedicines9010016 |
| Sari, E., Herawati, Anshori, U., & Nurmayulis. (2019). Biocoagulant of blood based on chitosan nanoparticle from crustacea. Journal of Physics: Conference Series, 1246(1). https://doi.org/10.1088/1742-6596/1246/1/012055 |
| Sari, Y., Purnawan, I., Wahyu Kurniawan, D., & Sutrisna, E. (2018). Gel aloe vera reduces MMP-9 in diabetic wounds. E3S Web of Conferences, 47. https://doi.org/10.1051/e3sconf/20184707008 |
| Sayed, S., & Jardine, A. (2015). Chitosan derivatives as important biorefinery intermediates. Quaternary tetraalkylammonium chitosan derivatives utilized in anion exchange chromatography for perchlorate removal. International Journal of Molecular Sciences, 16(5), 9064–9077. https://doi.org/10.3390/ijms16059064 |
| Schats, R., van Hattum, Ij., Kootker, L. M., Hoogland, M. L. P., & Waters‐Rist, A. L. (2022). Diet and urbanisation in medieval Holland. Studying dietary change through carious lesions and stable isotope analysis. International Journal of Osteoarchaeology, 32(1), 142–155. https://doi.org/10.1002/oa.3051 |
| Schiffman, J. D., & Schauer, C. L. (2007). One-step electrospinning of cross-linked Chitosan fibers. Biomacromolecules, 8(9), 2665–2667. https://doi.org/10.1021/bm7006983 |
| Seixas, M. J., Martins, E., Reis, R. L., & Silva, T. H. (2020). Extraction and Characterization of Collagen from Elasmobranch Byproducts for Potential Biomaterial Use. Marine Drugs, 18(12). https://doi.org/10.3390/md18120617 |
| Selvakumar, G., Kuttalam, I., Mukundan, S., & Lonchin, S. (2021). Valorization of toxic discarded fish skin for biomedical application. Journal of Cleaner Production, 323. https://doi.org/10.1016/j.jclepro.2021.129147 |
| Senarat, S., Sujittosakul, R., Kettratad, J., Pairohakul, S., Kaneko, G., & Jiraungkoorskul, W. (2021). Ultrastructure of hepatocyte and liver ontogeny of the indo-pacific seahorse hippocampus barbouri Jordan &amp; Richardson 1908. Journal of Advanced Veterinary Research, 11(3), 136–140. |
| Shafaei, A., Ashtiani, F. Z., & Kaghazchi, T. (2007). Equilibrium studies of the sorption of Hg(II) ions onto chitosan. Chemical Engineering Journal, 133(1–3), 311–316. https://doi.org/10.1016/j.cej.2007.02.016 |
| Shahidi, F. (1995). Extraction of value-added components from shellfish processing discards. In Developments in Food Science (Vol. 37, Issue C). https://doi.org/10.1016/S0167-4501(06)80244-X |
| Shalaby, H., Abo-Sdera, S., Easa, S., & Ismail, A.-M. (2019). Biosynthesis of biologically active chitinase utilizing some Egyptian chitinaceous wastes and the properties of the synthesized enzyme. Egyptian Pharmaceutical Journal, 18(4), 320. https://doi.org/10.4103/epj.epj\_23\_19 |
| Shao, X., Ran, L.-Y., Liu, C., Chen, X.-L., Zhang, X.-Y., Qin, Q.-L., Zhou, B.-C., & Zhang, Y.-Z. (2015). Culture condition optimization and pilot scale production of the M12 metalloprotease myroilysin produced by the deep-sea bacterium Myroides profundi D25. Molecules, 20(7), 11891–11901. https://doi.org/10.3390/molecules200711891 |
| Sharbidre, A., Sargar, S., Gogoi, H., & Patil, R. (2021). Characterization of chitin content extracted from edible insect, Coridius nepalensis (Westwood, 1837) (Hemiptera: Dinidoridae). International Journal of Tropical Insect Science, 41(2), 1893–1900. https://doi.org/10.1007/s42690-020-00386-3 |
| Shiekh, K. A., & Benjakul, S. (2020). Effect of pulsed electric field treatments on melanosis and quality changes of Pacific white shrimp during refrigerated storage. Journal of Food Processing and Preservation, 44(1). https://doi.org/10.1111/jfpp.14292 |
| Siddiqui, Y. D., Arief, E. M., Yusoff, A., Suzina, A. H., & Abdullah, S. Y. (2013). Isolation of pepsin-solubilized collagen (PSC) from crude collagen extracted from body wall of sea cucumber (Bohadschia spp.). International Journal of Pharmacy and Pharmaceutical Sciences, 5(SUPPL. 2), 555–559. |
| Sila, A., Mlaik, N., Sayari, N., Balti, R., & Bougatef, A. (2014). Chitin and Chitosan Extracted from Shrimp Waste Using Fish Proteases Aided Process: Efficiency of Chitosan in the Treatment of Unhairing Effluents. Journal of Polymers and the Environment, 22(1), 78–87. https://doi.org/10.1007/s10924-013-0598-7 |
| Silva, J. C., Barros, A. A., Aroso, I. M., Fassini, D., Silva, T. H., Reis, R. L., & Duarte, A. R. C. (2016). Extraction of Collagen/Gelatin from the Marine Demosponge Chondrosia reniformis (Nardo, 1847) Using Water Acidified with Carbon Dioxide - Process Optimization. Industrial and Engineering Chemistry Research, 55(25), 6922–6930. https://doi.org/10.1021/acs.iecr.6b00523 |
| Silva, R. S. G., Bandeira, S. F., & Pinto, L. A. A. (2014). Characteristics and chemical composition of skins gelatin from cobia (Rachycentron canadum). LWT, 57(2), 580–585. https://doi.org/10.1016/j.lwt.2014.02.026 |
| Singh, A., Benjakul, S., & Prodpran, T. (2019). Ultrasound-Assisted Extraction of Chitosan from Squid Pen: Molecular Characterization and Fat Binding Capacity. Journal of Food Science, 84(2), 224–234. https://doi.org/10.1111/1750-3841.14439 |
| Sinha, S., Tripathi, P., & Chand, S. (2012). A New Bifunctional Chitosanase Enzyme from Streptomyces sp. and Its Application in Production of Antioxidant Chitooligosaccharides. Applied Biochemistry and Biotechnology, 167(5), 1029–1039. https://doi.org/10.1007/s12010-012-9546-6 |
| Sionkowska, A., Kaczmarek, B., & Lewandowska, K. (2014). Modification of collagen and chitosan mixtures by the addition of tannic acid. Journal of Molecular Liquids, 199, 318–323. https://doi.org/10.1016/j.molliq.2014.09.028 |
| Sirbu, R., Stanciu, G., Cadar, E., Tomescu, A., & Cherim, M. (2019). Validation of a quantitative analysis method for collagen extracted from grey mullet marine fish. Revista de Chimie, 70(3), 835–842. https://doi.org/10.37358/rc.19.3.7016 |
| Sivakami, M. S., Gomathi, T., Venkatesan, J., Jeong, H.-S., Kim, S.-K., & Sudha, P. N. (2013). Preparation and characterization of nano chitosan for treatment wastewaters. International Journal of Biological Macromolecules, 57, 204–212. https://doi.org/10.1016/j.ijbiomac.2013.03.005 |
| Sivakumar, P., Arichandran, R., Suguna, L., Mariappan, M., & Chandrakasan, G. (2000). The composition and characteristics of skin and muscle collagens from a freshwater catfish grown in biologically treated tannery effluent water. Journal of Fish Biology, 56(4), 999–1012. https://doi.org/10.1006/jfbi.1999.1225 |
| Smets, G., & Rüdelsheim, P. (2018). Biotechnologically produced chitosan for nanoscale products. A legal analysis. New Biotechnology, 42, 42–47. https://doi.org/10.1016/j.nbt.2018.02.005 |
| Son, Y.-J., Hwang, I.-K., Nho, C. W., Kim, S. M., & Kim, S. H. (2021). Determination of carbohydrate composition in mealworm (Tenebrio molitor l.) larvae and characterization of mealworm chitin and chitosan. Foods, 10(3). https://doi.org/10.3390/foods10030640 |
| Song, E., Yeon Kim, S., Chun, T., Byun, H.-J., & Lee, Y. M. (2006). Collagen scaffolds derived from a marine source and their biocompatibility. Biomaterials, 27(15), 2951–2961. https://doi.org/10.1016/j.biomaterials.2006.01.015 |
| Sousa, R. O., Alves, A. L., Carvalho, D. N., Martins, E., Oliveira, C., Silva, T. H., & Reis, R. L. (2020). Acid and enzymatic extraction of collagen from Atlantic cod (Gadus Morhua) swim bladders envisaging health-related applications. Journal of Biomaterials Science, Polymer Edition, 31(1), 20–37. https://doi.org/10.1080/09205063.2019.1669313 |
| Sun, H., Yang, G., Cao, R., Mao, X., & Liu, Q. (2020). Expression and characterization of a novel glycoside hydrolase family 46 chitosanase identified from marine mud metagenome. International Journal of Biological Macromolecules, 159, 904–910. https://doi.org/10.1016/j.ijbiomac.2020.05.147 |
| Sun, W. ‐Q., Payne, G. F., Moas, M. S. G. L., Chu, J. H., & Wallace, K. K. (1992). Tyrosinase Reaction/Chitosan Adsorption for Removing Phenols from Wastewater. Biotechnology Progress, 8(3), 179–186. https://doi.org/10.1021/bp00015a002 |
| Sun, X., Tu, K., Li, L., Wu, B., Wu, L., Liu, Z., Zhou, L., Tian, J., & Yang, A. (2021). Integrated transcriptome and metabolome analysis reveals molecular responses of the clams to acute hypoxia. Marine Environmental Research, 168. https://doi.org/10.1016/j.marenvres.2021.105317 |
| Suyotha, W., Cheirsilp, B., Yano, S., Matsuba, S., & Konno, H. (2021). Production of Chitosanase by Lentzea sp. OUR-I1 Using Acid-Pretreated Shrimp Shell in an Air-Lift Bioreactor and the Feasibility of Utilizing the Residual Biomass. Waste and Biomass Valorization, 12(5), 2445–2458. https://doi.org/10.1007/s12649-020-01191-2 |
| Szteren, D., Aurioles-Gamboa, D., Labrada-Martagón, V., Hernández-Camacho, C. J., & De María, M. (2018). Historical age-class diet changes in South American fur seals and sea lions in Uruguay. Marine Biology, 165(4). https://doi.org/10.1007/s00227-018-3315-1 |
| Tajik, H., Moradi, M., Rohani, S. M. R., Erfani, A. M., & Jalali, F. S. S. (2008). Preparation of chitosan from brine shrimp (Artemia urmiana) cyst shells and effects of different chemical processing sequences on the physicochemical and functional properties of the product. Molecules, 13(6), 1263–1274. https://doi.org/10.3390/molecules13061263 |
| Takeo, M., Kimura, K., Mayilraj, S., Inoue, T., Tada, S., Miyamoto, K., Kashiwa, M., Ikemoto, K., Baranwal, P., Kato, D., Kato, D., & Negoro, S. (2018). Biosynthetic pathway and genes of Chitin/Chitosan-like bioflocculant in the genus Citrobacter. Polymers, 10(3). https://doi.org/10.3390/polym10030237 |
| Tamiasso-Martinhon, P., De Souza, J. M. T., Da Silva, S. M. C., Pessoa, F. L. P., & Sousa, C. (2017). Water treatment: Chitosan associated with electrochemical methods. IOP Conference Series: Materials Science and Engineering, 191(1). https://doi.org/10.1088/1757-899X/191/1/012008 |
| Tan, Y. N., Lee, P. P., & Chen, W. N. (2020). Microbial extraction of chitin from seafood waste using sugars derived from fruit waste-stream. AMB Express, 10(1). https://doi.org/10.1186/s13568-020-0954-7 |
| Thimoteo, S. S., Glogauer, A., Faoro, H., de Souza, E. M., Huergo, L. F., Moerschbacher, B. M., & Pedrosa, F. O. (2017). A broad pH range and processive chitinase from a metagenome library. Brazilian Journal of Medical and Biological Research, 50(1). https://doi.org/10.1590/1414-431x20165658 |
| Tinacci, L., Armani, A., Scardino, G., Guidi, A., Nucera, D., Miragliotta, V., & Abramo, F. (2020). Selection of Histological Parameters for the Development of an Analytical Method for Discriminating Fresh and Frozen/Thawed Common Octopus (Octopus vulgaris) and Preventing Frauds along the Seafood Chain. Food Analytical Methods, 13(11), 2111–2127. https://doi.org/10.1007/s12161-020-01825-0 |
| Tingbø, M. G., Pedersen, M. E., Grøndahl, F., Kolset, S. O., Veiseth-Kent, E., Enersen, G., & Hannesson, K. O. (2012). Type of carbohydrate in feed affects the expression of small leucine-rich proteoglycans (SLRPs), glycosaminoglycans (GAGs) and interleukins in skeletal muscle of Atlantic cod (Gadus morhua L.). Fish & Shellfish Immunology, 33(3), 582–589. https://doi.org/10.1016/j.fsi.2012.06.025 |
| Torrecillas, S., Terova, G., Makol, A., Serradell, A., Valdenegro-Vega, V., Izquierdo, M., Acosta, F., & Montero, D. (2021). Dietary Phytogenics and Galactomannan Oligosaccharides in Low Fish Meal and Fish Oil-Based Diets for European Sea Bass (Dicentrarchus labrax) Juveniles: Effects on Gill Structure and Health and Implications on Oxidative Stress Status. Frontiers in Immunology, 12. https://doi.org/10.3389/fimmu.2021.663106 |
| Torres-Arreola, W., Ocaño-Higuera, V. M., Ezquerra-Brauer, J. M., López-Corona, B. E., Rodríguez-Felix, F., Castro-Longoria, R., & Ramírez-Guerra, H. E. (2018). Effect of cooking on physicochemical and structural properties of jumbo squid (Dosidicus gigas) muscle. Journal of Food Processing and Preservation, 42(2). https://doi.org/10.1111/jfpp.13528 |
| Tran, T. N., Doan, C. T., Nguyen, M. T., Nguyen, V. B., Vo, T. P. K., Nguyen, A. D., & Wang, S.-L. (2019). An Exochitinase with N-Acetyl-β-Glucosaminidase-Like Activity from Shrimp Head Conversion by Streptomyces speibonae and Its Application in Hydrolyzing β-Chitin Powder to Produce N-Acetyl-d-Glucosamine. Polymers, 11(10), 1600. https://doi.org/10.3390/polym11101600 |
| Trung, T. S., Tram, L. H., Van Tan, N., Van Hoa, N., Minh, N. C., Loc, P. T., & Stevens, W. F. (2020). Improved method for production of chitin and chitosan from shrimp shells. Carbohydrate Research, 489, 107913. https://doi.org/10.1016/j.carres.2020.107913 |
| Tseng:, C.-C., Yeh, H.-Y., Liao, Z.-H., Hung, S.-W., Chen, B., Lee, P.-T., Nan, F.-H., Shih, W.-L., Chang, C.-C., & Lee, M.-C. (2021). An in vitro study shows the potential of Nostoc commune (Cyanobacteria) polysaccharides extract for wound-healing and anti-allergic use in the cosmetics industry. Journal of Functional Foods, 87, 104754. https://doi.org/10.1016/j.jff.2021.104754 |
| Tsurkan, D., Simon, P., Schimpf, C., Motylenko, M., Rafaja, D., Roth, F., Inosov, D. S., Makarova, A. A., Stepniak, I., Petrenko, I., Springer, A., Langer, E., Kulbakov, A. A., Avdeev, M., Stefankiewicz, A. R., Heimler, K., Kononchuk, O., Hippmann, S., Kaiser, D., … Ehrlich, H. (2021). Extreme Biomimetics: Designing of the First Nanostructured 3D Spongin–Atacamite Composite and its Application. Advanced Materials, 33(30), 2101682. https://doi.org/10.1002/adma.202101682 |
| Tuveng, T. R., Rothweiler, U., Udatha, G., Vaaje-Kolstad, G., Smalås, A., & Eijsink, V. G. H. (2017). Structure and function of a CE4 deacetylase isolated from a marine environment. PLoS ONE, 12(11). https://doi.org/10.1371/journal.pone.0187544 |
| Tzeng, T.-W., Bhaumik, P., & Chung, P.-W. (2019). Understanding the production of 5-hydroxymethylfurfural (HMF) from chitosan using solid acids. Molecular Catalysis, 479, 110627. https://doi.org/10.1016/j.mcat.2019.110627 |
| Uranga, J., Etxabide, A., Cabezudo, S., de la Caba, K., & Guerrero, P. (2020). Valorization of marine-derived biowaste to develop chitin/fish gelatin products as bioactive carriers and moisture scavengers. Science of The Total Environment, 706, 135747. https://doi.org/10.1016/j.scitotenv.2019.135747 |
| Valcarcel, J., Fraguas, J., Hermida-Merino, C., Hermida-Merino, D., Piñeiro, M. M., & Vázquez, J. A. (2021). Production and physicochemical characterization of gelatin and collagen hydrolysates from turbot skin waste generated by aquaculture activities. Marine Drugs, 19(9). https://doi.org/10.3390/md19090491 |
| Vales, D. G., Cardona, L., Loizaga, R., García, N. A., & Crespo, E. A. (2020). Long-Term Stability in the Trophic Ecology of a Pelagic Forager Living in a Changing Marine Ecosystem. Frontiers in Marine Science, 7. https://doi.org/10.3389/fmars.2020.00087 |
| Vales, D. G., Saporiti, F., Cardona, L., De Oliveira, L. R., Dos Santos, R. A., Secchi, E. R., Aguilar, A., & Crespo, E. A. (2014). Intensive fishing has not forced dietary change in the South American fur seal Arctophoca (=Arctocephalus) australis off Río de la Plata and adjoining areas. Aquatic Conservation: Marine and Freshwater Ecosystems, 24(6), 745–759. https://doi.org/10.1002/aqc.2397 |
| Vallecillos, A., Marín, M., Bortoletti, M., López, J., Afonso, J. M., Ramis, G., Arizcun, M., María-Dolores, E., & Armero, E. (2021). Genetic analysis of the fatty acid profile in gilthead seabream (Sparus aurata L.). Animals, 11(10). https://doi.org/10.3390/ani11102889 |
| van der Merwe, M., Auzoux-Bordenave, S., Niesler, C., & Roodt-Wilding, R. (2010). Investigating the establishment of primary cell culture from different abalone (Haliotis midae) tissues. Cytotechnology, 62(3), 265–277. https://doi.org/10.1007/s10616-010-9293-x |
| van der Walle, C. F. (2012). Towards a Bottom-up Approach for Mimicking Marine Sponge Spicules. Silicon, 4(1), 23–31. https://doi.org/10.1007/s12633-011-9071-1 |
| Veeruraj, A., Arumugam, M., & Balasubramanian, T. (2013). Isolation and characterization of thermostable collagen from the marine eel-fish (Evenchelys macrura). Process Biochemistry, 48(10), 1592–1602. https://doi.org/10.1016/j.procbio.2013.07.011 |
| Velazquez-Meraz, O., Ledezma-Sillas, J. E., Carreño-Gallardo, C., Yang, W., Chaudhari, N. M., Calderon, H. A., Rusakova, I., Robles Hernandez, F. C., & Herrera-Ramirez, J. M. (2019). Improvement of physical and mechanical properties on bio-polymer matrix composites using morphed graphene. Composites Science and Technology, 184, 107836. https://doi.org/10.1016/j.compscitech.2019.107836 |
| Vences, A., Rivas, A. J., Lemos, M. L., Husmann, M., & Osorio, C. R. (2017). Chromosomeencoded hemolysin, phospholipase, and collagenase in plasmidless isolates of Photobacterium damselae subsp. damselae contribute to virulence for fish. Applied and Environmental Microbiology, 83(11). https://doi.org/10.1128/AEM.00401-17 |
| Vendramin, V., Spinato, G., & Vincenzi, S. (2021). Shellfish chitosan potential in wine clarification. Applied Sciences (Switzerland), 11(10). https://doi.org/10.3390/app11104417 |
| Venkatachalam, A., Govinda Rajulu, M. B., Thirunavukkarasu, N., & Suryanarayanan, T. S. (2015). Endophytic fungi of marine algae and seagrasses: A novel source of chitin modifying enzymes. Mycosphere, 6(3), 345–355. https://doi.org/10.5943/MYCOSPHERE/6/3/10 |
| Vishali, S., Sengupta, P., Mukherjee, R., & Rao, N. (2018). Shrimp shell waste – A sustainable green solution in industrial effluent treatment. Desalination and Water Treatment, 104, 111–120. https://doi.org/10.5004/dwt.2018.21923 |
| Vishnuprasad, & Senthil Kumar, K. (2015). Adsorption studies on treatment of cooking oil mill effluent using crab shell chitosan. Journal of Chemical and Pharmaceutical Research, 7(11), 19–29. |
| Vosoughi, N., Gomarian, M., Ghasemi Pirbalouti, A., Khaghani, S., & Malekpoor, F. (2018). Essential oil composition and total phenolic, flavonoid contents, and antioxidant activity of sage (Salvia officinalis L.) extract under chitosan application and irrigation frequencies. Industrial Crops and Products, 117, 366–374. https://doi.org/10.1016/j.indcrop.2018.03.021 |
| Wada, S., Ichikawa, H., & Tatsumi, K. (1993). Removal of phenols from wastewater by soluble and immobilized tyrosinase. Biotechnology and Bioengineering, 42(7), 854–858. https://doi.org/10.1002/bit.260420710 |
| Wai, A. L. S., Man, R. C., Mudalip, S. K. A., Sulaiman, S. Z., Arshad, Z. I. M., & Shaarani, S. M. (2020). Effects of chemical hydrolysis operating parameters on the production of antioxidant from fish waste. IOP Conference Series: Materials Science and Engineering, 991(1), 012062. https://doi.org/10.1088/1757-899X/991/1/012062 |
| Wang, J., Zang, H., Jiao, S., Wang, K., Shang, Z., Li, H., & Lou, J. (2020). Efficient conversion of N-acetyl-D-glucosamine into nitrogen-containing compound 3-acetamido-5-acetylfuran using amino acid ionic liquid as the recyclable catalyst. Science of The Total Environment, 710, 136293. https://doi.org/10.1016/j.scitotenv.2019.136293 |
| Wang, L., Jayawardena, T. U., Yang, H.-W., Lee, H.-G., & Jeon, Y.-J. (2020). The potential of sulfated polysaccharides isolated from the brown seaweed ecklonia maxima in cosmetics: Antioxidant, anti-melanogenesis, and photoprotective activities. Antioxidants, 9(8), 1–15. https://doi.org/10.3390/antiox9080724 |
| Wang, L., Kim, H. S., Oh, J. Y., Je, J. G., Jeon, Y.-J., & Ryu, B. (2020). Protective effect of diphlorethohydroxycarmalol isolated from Ishige okamurae against UVB-induced damage in vitro in human dermal fibroblasts and in vivo in zebrafish. Food and Chemical Toxicology, 136. https://doi.org/10.1016/j.fct.2019.110963 |
| Wang, S. L., Chiou, S. H., & Chang, W. T. (1997). Production of chitinase from shellfish waste by Pseudomonas aeruginosa K-187. Proceedings of the National Science Council, Republic of China. Part B, Life Sciences, 21(2), 71–78. |
| Wang, S.-L., Liang, T.-W., & Yen, Y.-H. (2011). Bioconversion of chitin-containing wastes for the production of enzymes and bioactive materials. Carbohydrate Polymers, 84(2), 732–742. https://doi.org/10.1016/j.carbpol.2010.06.022 |
| Wang, Y., Liu, B.-X., Cheng, J.-H., Su, H.-N., Sun, H.-M., Li, C.-Y., Yang, L., Shen, Q.-T., Zhang, Y.-Z., Zhang, X., Zhang, X., & Chen, X.-L. (2020). Characterization of a New M4 Metalloprotease With Collagen-Swelling Ability From Marine Vibrio pomeroyi Strain 12613. Frontiers in Microbiology, 11. https://doi.org/10.3389/fmicb.2020.01868 |
| Wang, Y. V., Wan, A. H. L., Lock, E.-J., Andersen, N., Winter-Schuh, C., & Larsen, T. (2018). Know your fish: A novel compound-specific isotope approach for tracing wild and farmed salmon. Food Chemistry, 256, 380–389. https://doi.org/10.1016/j.foodchem.2018.02.095 |
| Webster, N. S., Negri, A. P., Webb, R. I., & Hill, R. T. (2002). A spongin-boring α-proteobacterium is the etiological agent of disease in the Great Barrier Reef sponge Rhopaloeides odorabile. Marine Ecology Progress Series, 232, 305–309. https://doi.org/10.3354/meps232305 |
| Wegner, L., Kinoshita, A., de Paiva, F. F. G., de Almeida Soares, P. N., Santana, W., & Pinto, E. M. (2021). Only carapace or the entire cephalothorax: which is best to obtain chitosan from shrimp fishery waste? Journal of Material Cycles and Waste Management, 23(5), 1831–1837. https://doi.org/10.1007/s10163-021-01254-z |
| Wijanarko, A., Januardi Ginting, M., Sahlan, M., Krisanta Endah Savitri, I., Florensia, Y., Regina Sudiarta, M., Pastika, S., Rafiki, F., & Hermansyah, H. (2017). Saponin Isolation as Main Ingredients of Insecticide and Collagen Type i from Crown of Thorn-Starfish (Acanthaster planci). IOP Conference Series: Earth and Environmental Science, 89(1). https://doi.org/10.1088/1755-1315/89/1/012032 |
| Wiley, A. E., Ostrom, P. H., Welch, A. J., Fleischer, R. C., Gandhi, H., Southon, J. R., Stafford, T. W., Penniman, J. F., Hu, D., Duvall, F. P., & James, H. F. (2013). Millennial-scale isotope records from a wide-ranging predator show evidence of recent human impact to oceanic food webs. Proceedings of the National Academy of Sciences, 110(22), 8972–8977. https://doi.org/10.1073/pnas.1300213110 |
| Wisser, D., Wisser, F. M., Raschke, S., Klein, N., Leistner, M., Grothe, J., Brunner, E., & Kaskel, S. (2015). Biological Chitin-MOF Composites with Hierarchical Pore Systems for Air-Filtration Applications. Angewandte Chemie International Edition, 54(43), 12588–12591. https://doi.org/10.1002/anie.201504572 |
| Wu, F.-C., Tseng, R.-L., & Juang, R.-S. (2000). Comparative adsorption of metal and dye on flake- and bead-types of chitosans prepared from fishery wastes. Journal of Hazardous Materials, 73(1), 63–75. https://doi.org/10.1016/S0304-3894(99)00168-5 |
| Xu, Y., Bajaj, M., Schneider, R., Grage, S. L., Ulrich, A. S., Winter, J., & Gallert, C. (2013). Transformation of the matrix structure of shrimp shells during bacterial deproteination and demineralization. Microbial Cell Factories, 12(1). https://doi.org/10.1186/1475-2859-12-90 |
| Xu, Y. J., Han, X. L., & Li, Y. (2010). Effect of marine collagen peptides on long bone development in growing rats. Journal of the Science of Food and Agriculture, 90(9), 1485–1491. https://doi.org/10.1002/jsfa.3972 |
| Yamada, M., & Aono, H. (2008). DNA-inorganic hybrid material as selective absorbent for harmful compounds. Polymer, 49(21), 4658–4665. https://doi.org/10.1016/j.polymer.2008.08.027 |
| Yamamoto, K., Yoshizawa, Y., Yanagiguchi, K., Ikeda, T., Yamada, S., & Hayashi, Y. (2015). The Characterization of Fish (Tilapia) Collagen Sponge as a Biomaterial. International Journal of Polymer Science, 2015. https://doi.org/10.1155/2015/957385 |
| Yang, F., Jin, S., & Tang, Y. (2019). Marine collagen peptides promote cell proliferation of NIH-3T3 fibroblasts via NF-κB signaling pathway. Molecules, 24(22). https://doi.org/10.3390/molecules24224201 |
| Yang, Y. J., Choi, Y. S., Jung, D., Park, B. R., Hwang, W. B., Kim, H. W., & Cha, H. J. (2013). Production of a novel silk-like protein from sea anemone and fabrication of wet-spun and electrospun marine-derived silk fibers. NPG Asia Materials, 5(6). https://doi.org/10.1038/am.2013.19 |
| Yoo, Y.-W., Park, G. J., & Lee, W. K. (2016). Surface modification of coralline scaffold for the improvement of biocompatibility and bioactivity of osteoblast. Journal of Industrial and Engineering Chemistry, 33, 33–41. https://doi.org/10.1016/j.jiec.2015.07.022 |
| Yousefi, N., Jones, M., Bismarck, A., & Mautner, A. (2021). Fungal chitin-glucan nanopapers with heavy metal adsorption properties for ultrafiltration of organic solvents and water. Carbohydrate Polymers, 253, 117273. https://doi.org/10.1016/j.carbpol.2020.117273 |
| Zaelani, B. F. D., Safithri, M., Tarman, K., Setyaningsih, I., & Meydia, M. (2019). Collagen isolation with acid soluble method from the skin of Red Snapper (lutjanus sp.). IOP Conference Series: Earth and Environmental Science, 241(1). https://doi.org/10.1088/1755-1315/241/1/012033 |
| Zhang, B.-C., Zhang, J., & Sun, L. (2014). Streptococcus iniae SF1: Complete genome sequence, proteomic profile, and immunoprotective antigens. PLoS ONE, 9(3). https://doi.org/10.1371/journal.pone.0091324 |
| Zhang, H., Yu, H., Qian, Y., & Chen, S. (2017). Production of chitin & chitosan using successive three-step microbial fermentation. Journal of Polymer Materials, 34(1), 123–127. |
| Zhang, H., Yun, S., Song, L., Zhang, Y., & Zhao, Y. (2017). The preparation and characterization of chitin and chitosan under large-scale submerged fermentation level using shrimp by-products as substrate. International Journal of Biological Macromolecules, 96, 334–339. https://doi.org/10.1016/j.ijbiomac.2016.12.017 |
| Zhang, J., Duan, R., Huang, L., Song, Y., & Regenstein, J. M. (2014). Characterisation of acid-soluble and pepsin-solubilised collagen from jellyfish (Cyanea nozakii Kishinouye). Food Chemistry, 150, 22–26. https://doi.org/10.1016/j.foodchem.2013.10.116 |
| Zhang, Y., Zhou, Z., Liu, Y., Cao, Y., He, S., Huo, F., Qin, C., Yao, B., & Ringø, E. (2014). High-yield production of a chitinase from Aeromonas veronii B565 as a potential feed supplement for warm-water aquaculture. Applied Microbiology and Biotechnology, 98(4), 1651–1662. https://doi.org/10.1007/s00253-013-5023-6 |
| Zhang, Z., Wang, J., Ding, Y., Dai, X., & Li, Y. (2011). Oral administration of marine collagen peptides from Chum Salmon skin enhances cutaneous wound healing and angiogenesis in rats. Journal of the Science of Food and Agriculture, 91(12), 2173–2179. https://doi.org/10.1002/jsfa.4435 |
| Zhao, Y., & Li, J. (2016). Ascidian bioresources: Common and variant chemical compositions and exploitation strategy - Examples of Halocynthia roretzi, Styela plicata, Ascidia sp. and Ciona intestinalis. Zeitschrift Fur Naturforschung - Section C Journal of Biosciences, 71(5–6), 165–180. https://doi.org/10.1515/znc-2016-0012 |
| Zheng, J., Tian, X., Xu, B., Yuan, F., Gong, J., & Yang, Z. (2020). Collagen peptides from swim bladders of giant croaker (Nibea japonica) and their protective effects against H2O2-induced oxidative damage toward human umbilical vein endothelial cells. Marine Drugs, 18(8). https://doi.org/10.3390/MD18080430 |
| Zhou, H., Zhang, Y., Xue, Y., Lin, S., & Zheng, Y. (2018). Separation and purification of L-proline and L-hydroxyproline from the hydrolysate of sea cucumber Acaudina leucoprota. Journal of Chemical Technology & Biotechnology, 93(12), 3543–3552. https://doi.org/10.1002/jctb.5727 |
| Zuo, Y., Zhan, J., & Costa, N. (2001). Use of shell chitin extracted from seafood processing waste in recycling of industrial wastewater. In S. M. Gupta (Ed.), SPIE 4193, Environmentally Conscious Manufacturing (pp. 403–412). https://doi.org/10.1117/12.417286 |
| Zuorro, A., Moreno-Sader, K. A., & González-Delgado, Á. D. (2021). Evaluating the feasibility of a pilot-scale shrimp biorefinery via techno-economic analysis. Journal of Cleaner Production, 320. https://doi.org/10.1016/j.jclepro.2021.128740 |
| Zuorro, A., Moreno-Sader, K. A. K. A. K. A., & González-Delgado, Á. D. Á. D. (2020). Economic Evaluation and Techno-Economic Sensitivity Analysis of a Mass Integrated Shrimp Biorefinery in North Colombia. Polymers, 12(10), 1–14. https://doi.org/10.3390/polym12102397 |
| Hajiali, F., Vidal, J., Jin, T. Y., de la Garza, L. C., Santos, M., Yang, G. L., & Moores, A. (2022). Extraction of Chitin from Green Crab Shells by Mechanochemistry and Aging. ACS SUSTAINABLE CHEMISTRY & ENGINEERING, 10(34), 11348–11357. https://doi.org/10.1021/acssuschemeng.2c02966 |
| Guarnieri, A., Triunfo, M., Scieuzo, C., Ianniciello, D., Tafi, E., Hahn, T., Zibek, S., Salvia, R., De Bonis, A., & Falabella, P. (2022). Antimicrobial properties of chitosan from different developmental stages of the bioconverter insect Hermetia illucens. SCIENTIFIC REPORTS, 12(1). https://doi.org/10.1038/s41598-022-12150-3 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Buscaglia, M., Guérard, F., Roquefort, P., Aubry, T., Fauchon, M., Toueix, Y., Stiger-Pouvreau, V., Hellio, C., & Le Blay, G. (2022). Mechanically Enhanced Salmo salar Gelatin by Enzymatic Cross-linking: Premise of a Bioinspired Material for Food Packaging, Cosmetics, and Biomedical Applications. Marine Biotechnology, 24(4), 801–819. https://doi.org/10.1007/s10126-022-10150-y |
| Babeanu, N., Radu, N., Enascuta, C. E., Alexandrescu, E., Ganciarov, M., Mohammed, M. S. O., Suica-Bunghez, I. R., Senin, R., Ursu, M., & Bostan, M. (2022). Obtaining and Characterizing Composite Biomaterials of Animal Resources with Potential Applications in Regenerative Medicine. POLYMERS, 14(17). https://doi.org/10.3390/polym14173544 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Mauro, M., Pinto, P., Settanni, L., Puccio, V., Vazzana, M., Hornsby, B. L., Fabbrizio, A., Di Stefano, V., Barone, G., & Arizza, V. (2022). Chitosan Film Functionalized with Grape Seed Oil-Preliminary Evaluation of Antimicrobial Activity. SUSTAINABILITY, 14(9). https://doi.org/10.3390/su14095410 WE  - Science Citation Index Expanded (SCI-EXPANDED) WE  - Social Science Citation Index (SSCI) |
| Lee, J. E., Noh, S. K., & Kim, M. J. (2022). Effects of Enzymatic- and Ultrasound-Assisted Extraction on Physicochemical and Antioxidant Properties of Collagen Hydrolysate Fractions from Alaska Pollack (Theragra chalcogramma) Skin. ANTIOXIDANTS, 11(11). https://doi.org/10.3390/antiox11112112 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Wang, Y., Su, H.-N., Cao, H.-Y., Liu, S.-M., Liu, S.-C., Zhang, X., Wang, P., Li, C.-Y., Zhang, Y.-Z., Zhang, X.-Y., & Chen, X.-L. (2022). Mechanistic Insight into the Fragmentation of Type I Collagen Fibers into Peptides and Amino Acids by a Vibrio Collagenase. Applied and Environmental Microbiology, 88(7). https://doi.org/10.1128/aem.01677-21 |
| Guiry, E. J., James, M., Cheung, C., & Royle, T. C. A. (2022). Four millennia of long-term individual foraging site fidelity in a highly migratory marine predator. COMMUNICATIONS BIOLOGY, 5(1). https://doi.org/10.1038/s42003-022-03310-2 WE  - Science Citation Index Expanded (SCI-EXPANDED) WE  - Social Science Citation Index (SSCI) |
| Martins, E., Diogo, G. S., Pires, R., Reis, R. L., & Silva, T. H. (2022). 3D Biocomposites Comprising Marine Collagen and Silica-Based Materials Inspired on the Composition of Marine Sponge Skeletons Envisaging Bone Tissue Regeneration. Marine Drugs, 20(11). https://doi.org/10.3390/md20110718 |
| Elhady, S. S., Goda, M. S., Mehanna, E. T., Elfaky, M. A., Koshak, A. E., Noor, A. O., Bogari, H. A., Malatani, R. T., Abdelhameed, R. F. A., & Wahba, A. S. (2022). Meleagrin Isolated from the Red Sea Fungus Penicillium chrysogenum Protects against Bleomycin-Induced Pulmonary Fibrosis in Mice. Biomedicines, 10(5). https://doi.org/10.3390/biomedicines10051164 |
| Valentino, M., Behal, J., Bianco, V., Itri, S., Mossotti, R., Fontana, G. D., Stella, E., Miccio, L., & Ferraro, P. (2022). Synthetic microfibers discriminated by AI-enabled polarization resolved Digital Holography. 2022 IEEE International Workshop on Metrology for the Sea; Learning to Measure Sea Health Parameters, MetroSea 2022, 511–515. https://doi.org/10.1109/MetroSea55331.2022.9950811 |
| Acharya, P. P., Kupendra, M. H., Fasim, A., More, S. S., & Murthy, V. K. (2022). A comparative assessment of collagen type 1 from silver carp (fresh water) and milk shark(marine) fish waste. 3 Biotech, 12(3). https://doi.org/10.1007/s13205-022-03114-5 |
| El-Beltagi, H. S., El-Mahdy, O. M., Mohamed, H. I., & El-Ansary, A. E. (2022). Antioxidants, Antimicrobial, and Anticancer Activities of Purified Chitinase of Talaromyces funiculosus Strain CBS 129594 Biosynthesized Using Crustacean Bio-Wastes. AGRONOMY-BASEL, 12(11). https://doi.org/10.3390/agronomy12112818 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Kimura, Y., Fukui, D., Yoshiyuki, M., & Higashi, K. (2022). Conservation paleobiology on Minami-Daito Island, Okinawa, Japan: anthropogenic extinction of cave-dwelling bats on a tropical oceanic island. PeerJ, 10. https://doi.org/10.7717/peerj.12702 |
| Lima, M., Gomes, L. C., Teixeira-Santos, R., Romeu, M. J., Valcarcel, J., Vazquez, J. A., Cerqueira, M. A., Pastrana, L., Bourbon, A. I., de Jong, E. D., Sjollema, J., & Mergulhao, F. J. (2022). Assessment of the Antibiofilm Performance of Chitosan-Based Surfaces in Marine Environments. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, 23(23). https://doi.org/10.3390/ijms232314647 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Rong, H., Lin, F., Ning, L., Wu, K., Chen, B., Zheng, J., Limbu, S. M., & Wen, X. (2022). Cloning, tissue distribution and mRNA expression of type I collagen alpha 1 gene from Chu’s croaker (Nibea coibor). Gene, 824. https://doi.org/10.1016/j.gene.2022.146441 |
| Heng, T. T., Tey, J. Y., Soon, K. S., & Woo, K. K. (2022). Utilizing Fish Skin of Ikan Belida (Notopterus lopis) as a Source of Collagen: Production and Rheology Properties. Marine Drugs, 20(8). https://doi.org/10.3390/md20080525 |
| Martins, E., Fernandes, R., Alves, A. L., Sousa, R. O., Reis, R. L., & Silva, T. H. (2022). Skin Byproducts of Reinhardtius hippoglossoides (Greenland Halibut) as Ecosustainable Source of Marine Collagen. Applied Sciences (Switzerland), 12(21). https://doi.org/10.3390/app122111282 |
| Arulmoorthy, M. P., Anbarasi, G., Srinivasan, M., & Vishnupriya, B. (2022). Biosynthesis and characterization of chitosan based hydrogel: A potential in vitro wound healing agent. In MATERIALS TODAY-PROCEEDINGS (Vol. 48, Issue International Conference on Impact of Innovations in Science and Technology for Societal Development (IISTSD)-Materials Science, pp. 263–275). https://doi.org/10.1016/j.matpr.2020.07.186 WE  - Conference Proceedings Citation Index - Science (CPCI-S) |
| Shamshina, J. L., & Abidi, N. (2022). Isolation of Chitin Nano-whiskers Directly from Crustacean Biomass Waste in a Single Step with Acidic Ionic Liquids. ACS SUSTAINABLE CHEMISTRY & ENGINEERING, 10(36), 11846–11855. https://doi.org/10.1021/acssuschemeng.2c02461 |
| Wing, S. R., Durante, L. M., Connolly, A. J., Sabadel, A., & Wing, L. C. (2022). Overexploitation and decline in kelp forests inflate the bioenergetic costs of fisheries. Global Ecology and Biogeography, 31(4), 621–635. https://doi.org/10.1111/geb.13448 |
| Aldebs, A. I., Abdulameer, H. A., & Abudken, A. M. (2022). Isolation and Characterization of Collagen Extracted from Fish Scales and Applied as Anti-TNFα Protein. Bahrain Medical Bulletin, 44(4), 1177–1180. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146392330&partnerID=40&md5=78304c47ac7838d1bd0a1159622c9bdd |
| Triunfo, M., Tafi, E., Guarnieri, A., Salvia, R., Scieuzo, C., Hahn, T., Zibek, S., Gagliardini, A., Panariello, L., Coltelli, M. B., De Bonis, A., & Falabella, P. (2022). Characterization of chitin and chitosan derived from Hermetia illucens, a further step in a circular economy process. Scientific Reports, 12(1). https://doi.org/10.1038/s41598-022-10423-5 |
| Cutajar, N., Lia, F., Deidun, A., Galdies, J., Arizza, V., & Zammit Mangion, M. (2022). Turning Waste into A Resource: Isolation and Characterization of High‐Quality Collagen and Oils from Atlantic Bluefin Tuna Discards. Applied Sciences (Switzerland), 12(3). https://doi.org/10.3390/app12031542 |
| Buckley, M., Harvey, V. L., Petiffer, D., Russ, H., Wouters, W., & Van Neer, W. (2022). Medieval fish remains on the Newport ship identified by ZooMS collagen peptide mass fingerprinting. Archaeological and Anthropological Sciences, 14(3). https://doi.org/10.1007/s12520-021-01478-y |
| Pandara, D. P., Masengi, K. W. A., Tamuntuan, G. H., Angmalisang, P. A., Wuntu, A. D., Ferdy, F., Bobanto, M. D., & Sompotan, A. F. (2022). The potential of fish scale application as photothermal raw material in seawater desalination. AACL Bioflux, 15(4), 1617–1629. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85134196996&partnerID=40&md5=f6bf3ccd3d001fc9e55e943114841317 |
| El-Naggar, M., Medhat, F., & Taha, A. (2022). Applications of chitosan and chitosan nanoparticles in fish aquaculture. Egyptian Journal of Aquatic Biology and Fisheries, 26(1), 23–43. https://doi.org/10.21608/ejabf.2022.213365 |
| Rozylo, K., Jedruchniewicz, K., Krasucka, P., Biszczak, W., & Oleszczuk, P. (2022). Physicochemical Characteristics of Biochar from Waste Cricket Chitin (Acheta domesticus). MOLECULES, 27(22). https://doi.org/10.3390/molecules27228071 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Rodriguez-Veiga, I., Acosta, N., Aranaz, I., & Dobrzycka-Krahel, A. (2022). Exploring Saduria entomon (Crustacea Isopoda) as a New Source for Chitin and Chitosan Isolation. International Journal of Molecular Sciences, 23(24). https://doi.org/10.3390/ijms232416125 |
| Tziveleka, L.-A., Kikionis, S., Karkatzoulis, L., Bethanis, K., Roussis, V., & Ioannou, E. (2022). Valorization of Fish Waste: Isolation and Characterization of Acid- and Pepsin-Soluble Collagen from the Scales of Mediterranean Fish and Fabrication of Collagen-Based Nanofibrous Scaffolds. Marine Drugs, 20(11). https://doi.org/10.3390/md20110664 |
| Xiong, L., Luo, T., Wang, L. F., Weng, Z. B., Song, H. Z., Wang, F., & Shen, X. C. (2022). Potential of food protein-derived peptides for the improvement of osteoarthritis. TRENDS IN FOOD SCIENCE & TECHNOLOGY, 129, 544–557. https://doi.org/10.1016/j.tifs.2022.11.004 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Kim, S.-C., Heo, S.-Y., Oh, G.-W., Yi, M., & Jung, W.-K. (2022). A 3D-Printed Polycaprolactone/Marine Collagen Scaffold Reinforced with Carbonated Hydroxyapatite from Fish Bones for Bone Regeneration. Marine Drugs, 20(6). https://doi.org/10.3390/md20060344 |
| Jabeur, F., Mechri, S., Mensi, F., Gharbi, I., Naser, Y. B., Kriaa, M., Bejaoui, N., Bachouche, S., Badis, A., Annane, R., Djellali, M., Sadok, S., & Jaouadi, B. (2022). Extraction and characterization of chitin, chitosan, and protein hydrolysate from the invasive Pacific blue crab, Portunus segnis (Forskål, 1775) having potential biological activities. Environmental Science and Pollution Research, 29(24), 36023–36039. https://doi.org/10.1007/s11356-021-18398-y |
| Cai, W., Kumar, S., Navaneethaiyer, U., Caballero-Solares, A., Carvalho, L. A., Whyte, S. K., Purcell, S. L., Gagne, N., Hori, T. S., Allen, M., Taylor, R. G., Balder, R., Parrish, C. C., Rise, M. L., & Fast, M. D. (2022). Transcriptome Analysis of Atlantic Salmon (Salmo salar) Skin in Response to Sea Lice and Infectious Salmon Anemia Virus Co-Infection Under Different Experimental Functional Diets. Frontiers in Immunology, 12. https://doi.org/10.3389/fimmu.2021.787033 |
| Zhang, D., Mohammed, H., Ye, Z., Rhodes, M. A., Thongda, W., Zhao, H., Jescovitch, L. N., Fuller, S. A., Davis, D. A., & Peatman, E. (2022). Transcriptomic profiles of Florida pompano (Trachinotus carolinus) gill following infection by the ectoparasite Amyloodinium ocellatum. Fish and Shellfish Immunology, 125, 171–179. https://doi.org/10.1016/j.fsi.2022.05.017 |
| Anouar, A., Grirrane, A., Álvarez, E., Katir, N., Primo, A., Garcia, H., & El Kadib, A. (2022). Nanosized copper stabilized on ternary P, N, S-doped graphene from chitosan shellfish waste: preparation and catalysis of single and double A3-type amine coupling. Materials Today Sustainability, 18. https://doi.org/10.1016/j.mtsust.2022.100109 |
| Hazeena, S. H., Hou, C.-Y., Zeng, J.-H., Li, B.-H., Lin, T.-C., Liu, C.-S., Chang, C.-I., Hsieh, S.-L., & Shih, M.-K. (2022). Extraction Optimization and Structural Characteristics of Chitosan from Cuttlefish (S. pharaonis sp.) Bone. Materials, 15(22). https://doi.org/10.3390/ma15227969 |
| Hou, E.-J., Hsieh, Y.-Y., Hsu, T.-W., Huang, C.-S., Lee, Y.-C., Han, Y.-S., & Chu, H.-T. (2022). Using the concept of circular economy to reduce the environmental impact of COVID-19 face mask waste. Sustainable Materials and Technologies, 33. https://doi.org/10.1016/j.susmat.2022.e00475 |
| Subramanian, K., Balaraman, D., Panangal, M., Rao, T. N., Perumal, E., Amutha, R., Kumarappan, A., Renuga, P. S., Arumugam, S., Thirunavukkarasu, R., Aruni, W., & AlOmar, S. Y. (2022). Bioconversion of chitin waste through Stenotrophomonas maltophilia for production of chitin derivatives as a Seabass enrichment diet. SCIENTIFIC REPORTS, 12(1). https://doi.org/10.1038/s41598-022-08371-1 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Batista, M. P., Fernández, N., Gaspar, F. B., Bronze, M. D. R., & Duarte, A. R. C. (2022). Extraction of Biocompatible Collagen From Blue Shark Skins Through the Conventional Extraction Process Intensification Using Natural Deep Eutectic Solvents. Frontiers in Chemistry, 10. https://doi.org/10.3389/fchem.2022.937036 |
| Ahmed, M., Anand, A., Verma, A. K., & Patel, R. (2022). In-vitro self-assembly and antioxidant properties of collagen type I from Lutjanus erythropterus, and Pampus argenteus skin. Biocatalysis and Agricultural Biotechnology, 43. https://doi.org/10.1016/j.bcab.2022.102412 |
| Samiei, M. H., Jamili, S., Nikukar, H., & Razban, V. (2022). Isolation, characterization and biocompatibility evaluation of collagen from Thunnus tonggol skin. IRANIAN JOURNAL OF FISHERIES SCIENCES, 21(2), 568–589. https://doi.org/10.22092/ijfs.2022.126579 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Song, X., Zhang, B. Y., Cao, Y. Q., Liu, B., & Chen, B. (2022). Shrimp-waste based dispersant as oil spill treating agent: Biodegradation of dispersant and dispersed oil. JOURNAL OF HAZARDOUS MATERIALS, 439. https://doi.org/10.1016/j.jhazmat.2022.129617 |
| Salazar, R., Salas-Gomez, V., Alvarado, A. A., & Baykara, H. (2022). Preparation, Characterization and Evaluation of Antibacterial Properties of Polylactide-Polyethylene Glycol-Chitosan Active Composite Films. Polymers, 14(11). https://doi.org/10.3390/polym14112266 |
| Wang, Y. H., Yang, Y. Q., Wang, R., Zhu, Y. L., Yang, P. B., Lin, Z. N., Wang, Z. H., & Cong, W. (2022). Effectively inhibiting the degradation of chitin during extraction from crustacean waste via a novel deep eutectic solvent aqueous solution. PROCESS BIOCHEMISTRY, 121, 142–151. https://doi.org/10.1016/j.procbio.2022.06.029 |
| Hanachi, A., Bianchi, A., Kahn, C. J. F., Velot, E., Arab-Tehrany, E., Cakir-Kiefer, C., & Linder, M. (2022). Encapsulation of Salmon Peptides in Marine Liposomes: Physico-Chemical Properties, Antiradical Activities and Biocompatibility Assays. MARINE DRUGS, 20(4). https://doi.org/10.3390/md20040249 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Bochenska, M., Bujko, M., Dyka, I., Srokosz, P., Ossowski, R., Bocheńska, M., Bujko, M., Dyka, I., Srokosz, P., Ossowski, R., Bochenska, M., Bujko, M., Dyka, I., Srokosz, P., Ossowski, R., Bocheńska, M., Buj |
| Vazquez, J. A., Pedreira, A., Duran, S., Cabanelas, D., Souto-Monter, P., Martinez, P., Mulet, M., Perez-Martin, R. I., & Valcarcel, J. (2022). Biorefinery for tuna head wastes: Production of protein hydrolysates, high-quality oils, minerals and bacterial peptones. JOURNAL OF CLEANER PRODUCTION, 357. https://doi.org/10.1016/j.jclepro.2022.131909 |
| Thomas, R., Fukamizo, T., & Suginta, W. (2022). Bioeconomic production of high-quality chitobiose from chitin food wastes using an in-house chitinase from Vibrio campbellii. BIORESOURCES AND BIOPROCESSING, 9(1). https://doi.org/10.1186/s40643-022-00574-8 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Fontana, R., Marconi, P. C. R., Caputo, A., & Gavalyan, V. B. (2022). Novel Chitosan-Based Schiff Base Compounds: Chemical Characterization and Antimicrobial Activity. Molecules, 27(9). https://doi.org/10.3390/molecules27092740 |
| Omar, B. A., Elmasry, R., Eita, A., Soliman, M. M., El-Tahan, A. M., & Sitohy, M. (2022). Upgrading the preparation of high-quality chitosan from Procambarus clarkii wastes over the traditional isolation of shrimp chitosan. SAUDI JOURNAL OF BIOLOGICAL SCIENCES, 29(2), 911–919. https://doi.org/10.1016/j.sjbs.2021.10.014 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Mahari, W. A. W., Waiho, K., Fazhan, H., Necibi, M. C., Hafsa, J., Ben Mrid, R., Fal, S., El Arroussi, H., Peng, W. X., Tabatabaei, M., Aghbashlo, M., Almomani, F., Lam, S. S., & Sillanpaa, M. (2022). Progress in valorisation of agriculture, aquaculture and shellfish biomass into biochemicals and biomaterials towards sustainable bioeconomy. CHEMOSPHERE, 291. https://doi.org/10.1016/j.chemosphere.2021.133036 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Sun, T.-C., Yan, B.-Y., Ning, X.-C., Tang, Z.-Y., Hui, C., Hu, M.-Z., Ramakrishna, S., Long, Y.-Z., & Zhang, J. (2022). A nanofiber hydrogel derived entirely from ocean biomass for wound healing. Nanoscale Advances, 5(1), 160–170. https://doi.org/10.1039/d2na00535b |
| Chik, C., Kamaruzzan, A. S., Rahim, A. I. A., Lananan, F., Endut, A., Aslamyah, S., & Kasan, N. A. (2023). Extraction and Characterization of Litopenaeus vannamei’s Shell as Potential Sources of Chitosan Biopolymers. JOURNAL OF RENEWABLE MATERIALS, 11(3), 1181–1197. https://doi.org/10.32604/jrm.2023.022755 |
| Wang, Y. H., Yang, Y. Q., Wang, R., Zhu, Y. L., Yang, P. B., Lin, Z. N., Wang, Z. H., & Cong, W. (2022). Efficient extraction of chitin from crustacean waste via a novel ternary natural deep eutectic solvents. CARBOHYDRATE POLYMERS, 286. https://doi.org/10.1016/j.carbpol.2022.119281 |
| Jaafar, A., Darchen, A., Driouich, A., Lakbaibi, Z., Boussaoud, A., Chatib, B., Laftani, Y., El Makhfouk, M., & Hachkar, M. (2022). Fish scale of Sardina pilchardus as a biosorbent for the removal of Ponceau S dye from water: Experimental, designing and Monte Carlo investigations. Inorganic Chemistry Communications, 137. https://doi.org/10.1016/j.inoche.2022.109196 |
| Wu, C. C., Lai, N. N., Chen, B. Y., & Hsueh, C. C. (2022). Feasibility study of chitosan extraction from waste leaves of Luffa cylindrica for bioresource recycling. SUSTAINABLE CHEMISTRY AND PHARMACY, 30. https://doi.org/10.1016/j.scp.2022.100864 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Migone, C., Scacciati, N., Grassiri, B., De Leo, M., Braca, A., Puppi, D., Zambito, Y., & Piras, A. M. (2022). Jellyfish Polysaccharides for Wound Healing Applications. International Journal of Molecular Sciences, 23(19). https://doi.org/10.3390/ijms231911491 |
| Amiri, H., Aghbashlo, M., Sharma, M., Gaffey, J., Manning, L., Basri, S. M. M., Kennedy, J. F., Gupta, V. K., & Tabatabaei, M. (2022). Chitin and chitosan derived from crustacean waste valorization streams can support food systems and the UN Sustainable Development Goals. NATURE FOOD, 3(10), 822–828. https://doi.org/10.1038/s43016-022-00591-y |
| Widyastuti, W., Setiawan, F., Al Afandy, C., Irawan, A., Laila, A., Juliasih, N., Setiawan, W. A., Arai, M., Hendri, J., & Setiawan, A. (2022). Antifungal Agent Chitooligosaccharides Derived from Solid-State Fermentation of Shrimp Shell Waste by Pseudonocardia antitumoralis 18D36-A1. FERMENTATION-BASEL, 8(8). https://doi.org/10.3390/fermentation8080353 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Coltelli, M.-B., Panariello, L., Vannozzi, A., Gigante, V., Gagliardini, A., Morganti, P., Cinelli, P., Lazzeri, A., De Bonis, A., & Falabella, P. (2022). Chitin and Its Derivatives: Nanostructured Materials from Different Marine and Terrestrial Sources. Chemical Engineering Transactions, 93, 295–300. https://doi.org/10.3303/CET2293050 |
| Chen, B., Yu, L., Wu, J., Qiao, K., Cui, L., Qu, H., Su, Y., Cai, S., Liu, Z., & Wang, Q. (2022). Effects of Collagen Hydrolysate From Large Hybrid Sturgeon on Mitigating Ultraviolet B-Induced Photodamage. Frontiers in Bioengineering and Biotechnology, 10. https://doi.org/10.3389/fbioe.2022.908033 |
| Amer, O. A., Ali, S. S., Azab, M., El-Shouny, W. A., Sun, J., & Mahmoud, Y. A.-G. (2022). Exploring new marine bacterial species, Alcaligenes faecalis Alca F2018 valued for bioconversion of shrimp chitin to chitosan for concomitant biotechnological applications. International Journal of Biological Macromolecules, 196, 35–45. https://doi.org/10.1016/j.ijbiomac.2021.12.033 |
| Prelipcean, A.-M., Iosageanu, A., Gaspar-Pintiliescu, A., Moldovan, L., Craciunescu, O., Negreanu-Pirjol, T., Negreanu-Pirjol, B., Mitran, R.-A., Marin, M., & D’Amora, U. (2022). Marine and Agro-Industrial By-Products Valorization Intended for Topical Formulations in Wound Healing Applications. Materials, 15(10). https://doi.org/10.3390/ma15103507 |
| Marimuthu, R., Devarayan, K., Sukumaran, M., Suresh, A., & Ravichandran, S. (2022). Piezoelectric property from processed crustacean shells. In MATERIALS TODAY-PROCEEDINGS (Vol. 58, Issue International Conference on Novel Engineering Materials for Biomedical, Energy, Environment, Sensing, and other Applications (ICONBEES), pp. 942–946). https://doi.org/10.1016/j.matpr.2021.12.402 |
| Miron, A., Sarbu, A., Zaharia, A., Sandu, T., Iovu, H., Fierascu, R. C., Neagu, A. L., Chiriac, A. L., & Iordache, T. V. (2022). A Top-Down Procedure for Synthesizing Calcium Carbonate-Enriched Chitosan from Shrimp Shell Wastes. GELS, 8(11). https://doi.org/10.3390/gels8110742 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Martinez-Robinson, K., Martinez-Inzunza, A., Rochin-Wong, S., Rodriguez-Cordova, R. J., Vasquez-Garcia, S. R., & Fernandez-Quiroz, D. (2022). Physicochemical study of chitin and chitosan obtained from California brown shrimp (Farfantepenaeus californiensis) exoskeleton. BIOTECNIA, 24(2), 28-35 WE-Emerging Sources Citation Index (ESCI). |
| McReynolds, C., Adrien, A., de Fraissinette, N. B., Olza, S., & Fernandes, S. C. M. (2022). Deep eutectic solvents for the extraction of β-chitin from Loligo vulgaris squid pens: a sustainable way to valorize fishery by-products. Biomass Conversion and Biorefinery. https://doi.org/10.1007/s13399-022-03569-9 |
| Huang, C. H., Lin, C. H., Huang, H. H., & Tsai, G. J. (2022). Development of Fermented Shrimp Shell Product with Hypoglycemic and Hypolipidemic Effects on Diabetic Rats. METABOLITES, 12(8). https://doi.org/10.3390/metabo12080695 WE  - Science Citation Index Expanded (SCI-EXPANDED) |
| Youcefi, F., Ouahab, L. W., Borsali, L., & Bengherbi, S. E. (2022). Heavy metal removal efficiency and antibacterial activity of chitosan beads prepared from crustacean waste. In MATERIALS TODAY-PROCEEDINGS (Vol. 53, Issue 11th Conference on Solid State Surfaces and Interfaces, pp. 265–268). https://doi.org/10.1016/j.matpr.2022.01.089 |
| Nerdy, N., Lestari, P., Simorangkir, D., Aulianshah, V., Yusuf, F., & Bakri, T. K. (2022). COMPARISON OF CHITOSAN FROM CRAB SHELL WASTE AND SHRIMP SHELL WASTE AS NATURAL ADSORBENT AGAINST HEAVY METALS AND DYES. International Journal of Applied Pharmaceutics, 14(2), 181–185. https://doi.org/10.22159/ijap.2022v14i2.43560 |
| Niu, J., Sun, M., Li, Z., Wang, Z., Kong, M., Wang, Y., Song, J., Zhang, Q., He, Y., & Qi, J. (2022). Whole transcriptome analysis provides new insight on immune response mechanism of golden pompano (Trachinotus ovatus) to Amyloodinium ocellatum infestation. Aquaculture, 560. https://doi.org/10.1016/j.aquaculture.2022.738396 |
| Gallo, N., Natali, M. L., Quarta, A., Gaballo, A., Terzi, A., Sibillano, T., Giannini, C., De Benedetto, G. E., Lunetti, P., Capobianco, L., Blasi, F. S., Sicuro, A., Corallo, A., Sannino, A., & Salvatore, L. (2022). Aquaponics-Derived Tilapia Skin Collagen for Biomaterials Development. Polymers, 14(9). https://doi.org/10.3390/polym14091865 |
| Godeau, X. Y., Andrianandrasana, F. J., Volkova, O., Szczepanski, C. R., Zenerino, A., Montreuil, O., Godeau, R.-P., Kuzhir, P., & Godeau, G. (2022). Investigation on dung beetle’s (Heliocopris Hope, 1838) chitosan valorisation for hydrogel 3D printing. International Journal of Biological Macromolecules, 199, 172–180. https://doi.org/10.1016/j.ijbiomac.2021.12.077 |
| Sun, J., Su, Y. C., Wang, L. H., Lv, F., & Wu, H. Y. (2022). Nutrients and antioxidant properties of enzymatically hydrolyzed anchovy (Engraulis japonicus) paste. CYTA-JOURNAL OF FOOD, 20(1), 251–258. https://doi.org/10.1080/19476337.2022.2129793 WE  - Science Citation Index Expanded (SCI-EXPANDED) |