

applications in different areas like in food industries (such as ice cream, jelly, lactic drinks, dressings, instant noodle, beer), textile printing industries, animal feed, pharmaceuticals (forming tablets, dentistry, wound dressing), and cosmetic industries. Moreover, an increased understanding of ALG composition and material properties will help meet medical and pharmaceutical specifications, thus providing enormous opportunity for the use of engineered bacteria for the production of ALGs.

Acknowledgment

Authors are highly grateful to the Department of Biotechnology for providing all necessary facilities and to CSIR for providing financial assistance to Ms. Rutika Sehgal. Financial assistance from DEST (Department of Environment, Science and Technology), Government of Himachal Pradesh, in the form of a research project is also thankfully acknowledged.

Conflict of Interests

The authors declare that there is no conflict of interests regarding the publication of this chapter.

References

1. Draget, K.I., Bræk, G.S., Smidsrød, O., Alginate gels: The effect of alginate chemical composition and molecular weight. *Carbohydr. Polym.*, 25, 31–38, 1994.
2. Orive, G., Carcaboso, A.M., Hernandez, R.M., Gascon, A.R., Pedraz, J.L., Biocompatibility evaluation of different alginates and alginate-based microcapsules. *Biomacromolecules*, 6, 927–931, 2005.
3. Andersen, T., Strand, B.L., Formo, K., Alsberg, E., Christensen, B.E., Alginates as biomaterials in tissue engineering, in: *Carbohydrate Chemistry*, A.P. Rauter, T. Lindhorst (Eds.), pp. 227–258, The Royal Society of Chemistry, London, 2011.
4. Helgerud, T., Gåserød, O., Fjæreide, T., Andersen, P.O., Larsen, C.K., Alginates, in: *Food Stabilizers, Thickeners and Gelling Agents*, A. Imeson (Ed.), pp. 50–72, Wiley-Blackwell, Oxford, UK, 2009.
5. Knudsen, N.R., Ale, M.T., Fatemeh, A., Meyer, A.S., Characterization of alginates from Ghanaian brown seaweeds: *Sargassum* spp. and *Padina* spp. *Food Hydrocoll.*, 71, 236–244, 2017.