

Determination of sodium alginate in algae by near-infrared spectroscopy

Peilong Xu^{a,*}, Na Na^b, Shouwu Gao^a, Cunzhen Geng^{a,*}

^aState Key Laboratory of Bio-Fibers and Eco-Textiles, Qingdao University, Qingdao, 266071, China, emails: xpl@qdu.edu.cn (P.L. Xu), qdugcz@qdu.edu.cn (C.Z. Geng)

^bQingdao Municipal Health Commission, Qingdao, 266071, China, email: cathyna@yeah.net

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ABSTRACT

In this study, the components of natural seaweed fiber were determined by near-infrared spectroscopy, and the qualitative analysis model of natural seaweed was established by using support vector machine algorithm based on principal component analysis. For the natural algae containing sodium alginate, a near-infrared spectrum analysis model for the content of sodium alginate was established by using multi-model method. The model has very good analytical and predictive ability. The model can be used to distinguish the composition and active component contents of natural algae quickly, and it also has the advantages of fast, nondestructive, convenient and so on.

Keywords: Near-infrared spectrum; Natural algae; Support vector machine algorithm; Multi-model method

* Corresponding authors.