Santosh Bhujbal, Nat Prod Chem Res 2018, Volume 6
DOI: 10.4172/2329-6836-C1-018

Santosh Bhujbal

Dr D Y Patil Institute of Pharmaceutical Sciences and Research, India

Stability enhancement of anthocyanins from *Hibiscus sabdariffa* with respect to their application as food colorant

Synthetic food colors are widely used in foodstuff to increase consumer acceptance. The use of non-permitted colors or overindulgence of permitted colors reported to cause toxicity in humans. As a substitute, the study of natural colorants is becoming an extensive area of investigation. Natural coloring compounds are water soluble anthocyanins, betalains, carminic acid, and the oil soluble carotenoids and chlorophylls. Anthocyanins are blue-purple-red-orange colored plant flavonoids. So far, anthocyanins have not been broadly used in foods and beverages, since they are not as stable as synthetic dyes. Copigments are colourless substances which form a colored complex with anthocyanins to exhibit far greater color than original and prevent formation of colorless pseudobase and enhance its stability in various forms. Purified anthocyanin solutions were copigmented with phenolic acids like gallic acid, tannic acid, ferullic acid & ellagic acids and with flavonoids like rutin & quercetin in different concentrations between anthocyanins and copigments viz. 1:0, 1:2, 1:4, and 1:6 at pH values (1.5, 2.5, 3.5). Copigmentation was observed using UV–vis Spectrophotometry. The maximum effect, revealed by hyperchromic shift was observed at all pH values. Ferulic acid was effective copigment causing hyperchromic and bathochromic shifts. Copigmention studies of *Hibiscus sabdariffa* anthocyanins with ferulic acid in 1:6 concentrations at pH 2.5, significantly increased sunlight stability & heat stability compared with natural anthocyanins.

Biography

Santosh Bhujbal has completed his PhD degree from University of Pune in India. He is the Professor and Head of the Department of Pharmacognosy at Dr. D Y Patil Institute of Pharmaceutical Sciences and Research, Pimpri, Pune (India). His extensive research experience is in the field of pharmacognosy including development, standardization & evaluation of novel herbal formulations. He has more than 16 publications in national and international journals and filed one Indian patent and authored two books. He is an Elected Member of Board of Studies – Pharmacognosy, Faculty of Pharmaceutical Sciences, University of Pune. As a Recognized Subject Matter Expert, he has been invited as Resource Person/Speaker at national & state level conferences/seminars.

santoshbhujbals@yahoo.com

Notes: