

Extraction of Natural Colorant from the Flowers of Flame of Forest Using Ultrasound

Authors : Sunny Arora, Meghal A. Desai

Abstract : An impetus towards green consumerism and implementation of sustainable techniques, consumption of natural products and utilization of environment friendly techniques have gained accelerated acceptance. Butein, a natural colorant, has many medicinal properties apart from its use in dyeing industries. Extraction of butein from the flowers of flame of forest was carried out using ultrasonication bath. Solid loading (2-6 g), extraction time (30-50 min), volume of solvent (30-50 mL) and types of solvent (methanol, ethanol and water) have been studied to maximize the yield of butein using the Taguchi method. The highest yield of butein 4.67% (w/w) was obtained using 4 g of plant material, 40 min of extraction time and 30 mL volume of methanol as a solvent. The present method provided a greater reduction in extraction time compared to the conventional method of extraction. Hence, the outcome of the present investigation could further be utilized to develop the method at a higher scale.

Keywords : butein, flowers of Flame of the Forest, Taguchi method, ultrasonic bath

Conference Title : ICACCE 2018 : International Conference on Applied Chemistry and Chemical Engineering

Conference Location : Bangkok, Thailand

Conference Dates : February 08-09, 2018