

Title: Spray drying of violet pigment from *Chromobacterium violaceum* UTM 5 and its application in food model systems

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Abstract: Spray drying is one of the well-established one-step processes of encapsulation technique to form micro particles. The concentrated violet pigment produced from *Chromobacterium violaceum* UTM 5 was encapsulated using Gum Arabic and spray dried under optimum conditions: atomizing air (1.15 kg/cm³), temperature feed rate (30 °C), air flow rate (60 m³/h), inlet (180 °C) and outlet (85 °C) temperatures to produce violet powder. On further investigation, the encapsulated pigment exhibited greatest stability during the entire storage period of 30 days at pH 7, temperature 25-60 °C and under dark condition. The violet powders produced were utilized in coloring food products, yogurt and jelly. Results confirmed promising use of this healthy natural colorant in food industry. This is the first report on spray drying of violet pigment from *Chromobacterium violaceum* and its potential for application in food items.