

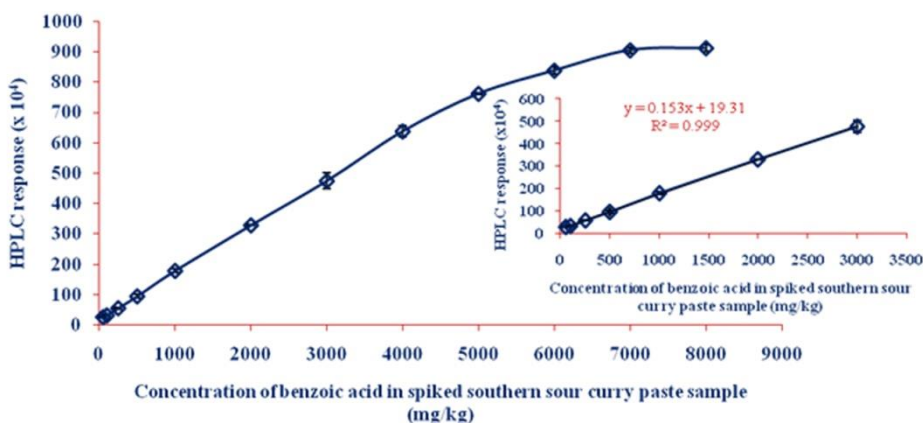
Analysis of benzoic acid in curry paste samples by ultrasonic extraction and high performance liquid chromatography

Nararat Thongsrinoon^{1*}, Netnapha Phiwdee¹, Yanada Duangsa¹, Khaengkhae Muensub¹ and Vichayaporn Duang-iad¹

¹Chemistry and Applied Chemistry Program, Faculty of Science and Technology, Songkhla Rajabhat University, Thailand

*e-mail: nararat.th@skru.ac.th

An ultrasonic extraction was studied for benzoic determination in curry paste samples by using high performance liquid chromatography. Methanol-0.05 M ammonium acetate buffer pH 4.40 (55 : 45) at a flow rate of 1.00 mL/min was used as the mobile phase and benzoic acid detection was performed at 226 nm using UV-Visible detector. Under the optimum conditions, linearity of spiked sample was obtained in the range 50 to 3,000 mg/kg. Benzoic acid contents determined by the developed ultrasonic extraction and high performance liquid chromatography using matrix matched calibration were 67.59, 78.62 and 72.33 mg/kg for southern sour curry paste, red curry paste and green curry paste samples, respectively. Recoveries were obtained in the range 89.34 to 101.70%, 83.37 to 130.30% and 92.75 to 113.56% with R.S.D. were 2.71 to 6.53%, 4.02 to 11.58% and 5.81 to 6.35%, for southern sour curry paste, red curry paste and green curry paste samples, respectively.



Keywords: Benzoic acid; Curry paste; Ultrasonic extraction; High performance liquid chromatography