

Influence of Decolourisation Condition on the Physicochemical Properties of Shea (*Vitellaria paradoxa* Gaertner F) Butter

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Abstract : In this investigation, kinetics studies of adsorption of colour material of shea butter showed a peak at the wavelength 440 nm and the equilibrium time was found to be 30 min. Response surface methodology applying Doehlert experimental design was used to investigate decolourisation parameters of crude shea butter. The decolourisation process was significantly influenced by three independent parameters: contact time, decolourisation temperature and adsorbent dose. The responses of the process were oil loss, acid value, peroxide value and colour index. Response surface plots were successfully made to visualise the effect of the independent parameters on the responses of the process.

Keywords : decolourisation, doehlert experimental design, physicochemical characterisation, RSM, shea butter

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