

**OPTIMIZATION OF EXTRACTION PARAMETERS FROM
POMEGRANATE PEELS (*Punica granatum* L.)
EXTRACT AS NATURAL COLORANT**

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ABSTRACT

OPTIMIZATION OF EXTRACTION PARAMETERS FROM POMEGRANATE PEELS (*Punica granatum* L.) EXTRACT AS NATURAL COLORANT

Pomegranate fruit (*Punica granatum* L.) is small tree of Asia which belongs to the family Punicaceae. The peels of pomegranate fruit are often considered as wastes that will lead to environmental problem. Thus, this study was emphasized at exploring the feasibility of using the peels of pomegranate fruit as natural colorant using solvent extraction technique. In this study, several extraction parameters were optimized and the total natural pigment content was identified using UV-Vis Spectrophotometer. Results obtained showed the optimum extractions for natural pigment of extraction time, temperature, and pH were 40 minutes, 80°C, and pH 2 respectively. For the determination of stability on light, sample extracted was more stable when kept in dark condition compare to expose with light. Qualitative methods also have been conducted in order to determine the presence of natural pigment in the sample extracted. In conclusion, the natural pigment extracted from the peels of pomegranate fruit not only has potential to be used as natural colorant pigment but it is also involves simple and safe technique, inexpensive, and environmental friendly.