

## ABSTRACT

Solar cooker is a cooking device that uses solar energy as the source. In the utilization process, *PCM* can be used to store solar energy as heat storage for a solar cooker. This solar cooker uses *PCM* as a media to store energy.

This final project produces a numeric simulation in the form of temperature distribution, charging process and discharging process from the *PCM* under Stefan Problem. Numeric solution obtained by transforming heat conduction equation of the *PCM* to enthalpy equation and solved with *Godunov* method.

Simulation result shows that *Magnesium chloride hexahydrate* has a lower temperature distribution than *Erythritol* that has the highest temperature distribution in the charging process, other than that *Magnesium chloride hexahydrate* has the lowest heat flow in the discharging process so it is suitable for the utilization of heat storage tools that is used for cooking in a long time.

**Keyword:** Solar cooker, Phase Change Material (*PCM*), Stefan problem, *Godunov* methode