Temperature Dependenceof Thermal Parameters of PCM- Erythritol and Mannitol Derivatives

Oldrich Zmeskal [C, S], Lucie Trhlikova, Radek Prikryl and Pavel Florian
Faculty of Chemistry, Brno University of Technology, Brno, Czech Republic
zmeskal@fch.vutbr.cz

This paper is focused on the measurement of temperature dependence PCM. Transient methods were used to determine the thermal parameters: thermal diffusivity, thermal conductivity and specific heat. The method was applied to the selected PCM - derivatives of erythritol and mannitol. Interval for temperature dependency was chosen so that it is possible to study a macroscopic change in phase region (118 ° C, resp. 169 ° C). The gained knowledge will be used in the design of heat exchangers.