

عنوان مقاله:

Modelling Of PMMA Effects Of Assumptions On Kinetic Parameters In Pyrolysis

محل انتشار:

کنفرانس بین المللی یافته های نوین پژوهشی در مهندسی صنایع و مهندسی مکانیک (سال: 1394)

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خلاصه مقاله:

In this paper, the effects of model function's type and also the values of activation energy and pre-exponential factor on prediction of mass loss rate and surface temperature for PMMA sample have been investigated. While a small change in the chemical degradation mechanism has a large effect on the predictions of the mass loss rate, the surface temperature is not effected. Finding the physical value for kinetic parameters in pyrolysis modelling is related to assumption on reaction scheme and type of model function which is used in reaction rate equation. Many of the optimized values go significantly over the range found in the literature, indicating that non-physical values are found during the optimization. This is indicative of potential for compensation of one parameter value with others.

کلمات کلیدی:

pyrolysis model, kinetic model function, mass loss rate, surface temperature

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