

**THE DEVELOPMENT OF INNOVATIVE LEARNING
MATERIAL THERMOCHEMISTRY WITH ACTIVE
LEARNING AND MULTIMEDIA**

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ABSTRACT

The development of Innovative Learning Material Thermochemistry with Active Learning and Multimedia is explained. The study is aimed to develop and to standarize learning material on thermochemistry to meet standard based on BSNP and suited with curriculum 2013 by integrate some medias, and to know response of lecture and student in aspect of content, language, presentation and format of innovative learning material has been made. The learning material was developed by enrichment learning material by integrate laboratory activity related of chemistry experiment in scope of thermochemistry through video learning, link websites to relevant material. The material is designed in printed and electronic form. The study conducted by development, innovation that support active learning by involve multimedia in learning material which arranged based on syllabus in curriculum 2013, and followed by standarization of BSNP standard and trial by chemistry lecturer and students in SHS. The results showed that Innovative Learning Material Thermochemistry With Active Learning and Multimedia have been developed well. The Learning material Thermochemistry consist of 2 sub topic, successively are: (1) Exothermic and Endothermic Reaction, (2) Enthalphy Changes that consist of : Standard Enthalphy Change, Calorimeter, Hess's Law, and Bond Energy. Based on standardization by chemistry lecturers have average 3.53 and students in SMA N 1 Sidikalang is 3.33 students in SMA N 1 Berastagi is 3.58 and students in SMA N 1 Perbaungan is 3,31. And the average of both team is 3.44. The average of 3.44 is in range 3.26 to 4.00 concluded that Innovative Learning Material Thermochemistry With Active Learning and Multimedia is valid and does not need to revise and proper use as learning material and media in teaching and learning activity. The learning material set in e-book and media set in a CD to make it easy to use in teaching and learning process in offline system.