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A NEW EXPERIMENTAL METHOD IN THIS CONTEXT OF THE CHANGE OF COLOR WITH PHYSICAL AND CHEMICAL CHANGES

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Abstract

The linkage between change of color with the physical and chemical change is challenge in science education. It is mostly used the hypothesis expressing as "If its color changes when a substance is solved, chemical change in the substance occurs". But, there are many samples refuted this hypothesis in practice. In this study, two experimental models have been planned to enlighten this situation. They base the qualitative analysis known and the solubility of iodine in ethanol and chloroform respectively. In this model, they are successively demonstrated to test hypothesizes proposed after concepts cited are taught with meaningful learning approach. They are evidence of hypothesis suggested as "If its color changes when a substance is solved, sometimes physical change or sometimes both physical and chemical change in the substance occurs". In addition, they are carried out in one lesson time with simple instruments and the cheap, easy available chemical substances that may not affect to the health of human. They can be contributed to the improving of science process skills and to the meaningful learning of students in middle school in this context of the linkage of the change of color with physical and chemical changes.

Key Words: Science education, demonstration, physical change, chemical change, color change.