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Effect of potassium chloride on physical and optical properties of polystyrene

Majeed Ali Habeeb, Bahaa H. Rabee, Ahmad Hashim

مجيد علي حبيب ، بهاء حسين صالح ، احمد هاشم

Department of Physic, College of Education for Pure Science, Babylon University, Iraq

E-mail: ahmed_taay@yahoo.com

E-mail: Majeed_ali74@yahoo.com

Composite materials are used in many industries such: solar cells, optoelectronic device elements, light emitting diodes, aircraft, military and car industry. In this paper, effect of potassium chloride on physical and optical properties of polystyrene has been studied to use the new material in many applications. The physical properties showed that the absorption of composite to water increases with increase time of the submerging in the water. Also, diffusion coefficient increases with increase the potassium chloride concentrations. The optical properties were measured in wavelength range from 200nm to 800nm. The experimental results showed that absorbance of polystyrene increases with increase the potassium chloride concentrations. The optical constants (absorption coefficient, energy band gap, extinction coefficient, refractive index and real and imaginary parts of dielectric constants) are increasing with increase the potassium chloride concentrations.

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المؤتمرات ، بغداد

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ncpiraq2012@gmail.com