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KINETIC STUDIES OF CHEMICAL REACTION USING LASER INDUCED THERMAL LENS TECHNIQUE

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A dual beam thermal lens technique has found to be an effective method to study the kinetics of chemical reactions. 532 nm radiation from a diode pumped Nd: YVO₄ (cw) is used as the excitation source to generate thermal lens in the medium and the lens is probed using 632.8 nm from a He-Ne laser. Concentration dependence of rate of a simple reaction of potassium iodide and potassium dioxy persulphate is presented in the paper. The time dependence of thermal lens signal strength provides the reaction rate of chemical reactions.

Keywords: Photothermal phenomena; Thermal lens; Chemical reactions.

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