

Turkish Journal of Chemistry


Turkish Journal

of

Chemistry

**Comparative kinetic studies on the
alkaline hydrolysis of halogen
substituted isocoumarins**

H. Badaruddin AHMAD¹, M. Aslam
MALANA², Muhammad YOUSAF²,
Muhammad REHAN², Mazhar ABBAS²,
ABAI DULLAH²

 [Keywords](#)
 [Authors](#)

¹Department of Chemistry B. Z. University
Multan 60000, PAKISTAN
e-mail: hafizbadar@gmail.com

²Department of Chemistry GC University
Faisalabad 38000, PAKISTAN



chem@tubitak.gov.tr

[Scientific Journals
Home Page](#)

Abstract: Kinetics of the hydrolysis of 3-(2'-chloro-6'-fluorobenzyl) isocoumarin (1), 3-(4'-fluorophenyl)isocoumarin (3), 3-(2'-fluorophenyl)isocoumarin (5), 3-(2'-chlorophenyl)isocoumarin (7), and 3-(4'-chlorophenyl)isocoumarin (9) were studied spectrophotometrically in the presence of aqueous solution of potassium hydroxide. The rates of hydrolyses for these isocoumarins were compared. The data for isocoumarin (1) were further investigated to probe the reaction mechanism. The dependence of pseudo-first order rate constant k_{obs} on hydroxide ion concentration is fitted by the expression