Substituent effects on azo coupling of indoles. Albar, Hassan A.; Shawali, Ahmad S.; Abdaliah, Magda A. Fac. Sci., King Abdulaziz Univ., Jeddah, Saudi Arabia. Canadian Journal of Chemistry (**1993**), 71(12), 2144-9. CODEN: CJCHAG ISSN: 0008-4042. Journal written in English. CAN 120:269553 AN 1994:269553 CAPLUS (Copyright 2004 ACS on SciFinder (R))

Abstract

The kinetics of the azo coupling of eight para-substituted benzenediazonium tetrafluoroborates with indole and its 1-, 2-, and 3-Me derivs. were studied in acetonitrile at 25□ under pseudo-first-order conditions. Hammett reaction consts. (□) were obtained, and a plot of □ vs. pKa of the indoles yielded □ = 2.97 - 0.15pKa. These results indicate that the azo-coupling reactions follow one general mechanism involving rate-limiting initial electrophilic attack at the 3-position.