IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 12, Issue 4, December 2021
Impact Factor: 5.731

Anion Induced Fluorescence Quenching of Various Aromatic Amino Fluorophores

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Abstract: *Fluorescence quenching of 2-amino7-bromofluorine (**2ABF**) and 4,4'-diaminodiphenyl sulphone (**4DADPS**),)] by inorganic anions Cl^-, Br^-, SO_4^{2-} SO_3^{2-}, $S_2O_3^{2-}$, CO_3^{2-}, NO^{3-}, & HPO_4^{2-} have been studied in 95% (v/v) water–ethanol mixture medium..The quenching was found to be dynamic in all systems. The plots of log kq values with singlet transition energy (E_s) of the fluorophore and with E_{CTTS} of the quencher are linear indicating the presence of electron-transfer quenching mechanism. ΔG_{TH} values for charge transfer quenching have been determined for aminodiphenylsulphone.*

Keywords: Fluorescence Quenching, 2-amino7-bromofluorine ,4,4-diaminodiphenylsulphone, Anionic Quenching, Electron Transfer Mechanism

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