Kinetics and Mechanism of the Oxidation of Coomassie Brilliant Blue-R dye by Hypochlorite and Role of Acid there in.

Srinivasu Nadupalli, Venkata D.B.C. Dasireddy, Neil A. Koorbanally and Sreekantha B. Jonnalagadda*

School of Chemistry and Physics, University of KwaZulu-Natal, Westville Campus, Private Bag X54001, Durban 4000, South Africa

*Corresponding author: jonnalagaddas@ukzn.ac.za


Figure S1. 1H NMR spectrum for brilliant blue-R major oxidation product P₁ (4-(4-ethoxyphenylamino)-benzoic acid) with hypochlorite.
Figure S2. $^{13}$C NMR spectrum for brilliant blue-R major oxidation product $P_1$ (4-(4-ethoxyphenylamino)-benzoic acid) with hypochlorite.
Figure S3. GC-MS spectrum for brilliant blue-R major oxidation product (P₁ (4-(4-ethoxyphenylamino)-benzoic acid) with hypochlorite.
Figure S4. $^1$H NMR spectrum for brilliant blue-R major oxidation product $P_2$ (3-ethylaminomethylbenzenesulphonic acid) with hypochlorite.
Figure S5. $^{13}$C NMR spectrum for brilliant blue-R major oxidation product P$_2$(3-ethylamino methyl benzenesulphonic acid) with hypochlorite.
Figure S6. GC-MS spectrum for brilliant blue-R major oxidation product P₂(3-ethylaminomethylbenzenesulphonic acid) with hypochlorite.
Figure S7. $^1$H NMR spectrum of brilliant blue-R major oxidation product $P_4$ (6’-chloro-5’-hydroxy-bicyclohexylidene-2,5,2’-triene-4,4’-dione) with hypochlorite.

Figure S8 $^{13}$C NMR spectrum of brilliant blue-R major oxidation product $P_4$ (6’-chloro-5’-hydroxy-bicyclohexylidene-2,5,2’-triene-4,4’-dione) with hypochlorite.
Figure S9. GC-MS spectrum of brilliant blue-R major oxidation product P₄ (6'-chloro-5'-hydroxy-bicyclohexylidene-2,5,2'-triene-4,4'-dione) with hypochlorite.