**Comparative mineralization of basic red 18 with electrochemical advanced oxidation processes.**

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**Supplementary** Table S1. Properties of BR18

|  |  |
| --- | --- |
| **Properties** |  |
| **CAS Registry Number** | 14097-03-1 |
| Molecular Structure |  |
| **Molecular Formula** | C19H25Cl2N5O2 |
| **Molecular Weight** | 426.34 |
| Chemical Name | [2-[[4-[(2-chloro-4-nitrophenyl) azo]phenyl] ethylamino] ethyl] trimethylammonium |
| The water solubility  | 30 g L-1 |
| **Class** | Single azo dye |

**Supplementary** Table S2. MCE % and TOC removal % values for different oxidation methods.

|  |  |  |
| --- | --- | --- |
| System | MCE % | TOC % |
| 1 h | 3 h | 5 h | 1 h | 3 h  | 5 h |
| FeII + PS | - | - | - | 1 | 4 | 20 |
| Electro-Fenton 100 mA | 30.09 | 31.35 | 22.95 | 21 | 64 | 77 |
| Electro-Fenton 200 mA | 25.39 | 17.87 | 11.85 | 34 | 75 | 81 |
| Electro-Fenton 300 mA | 23.22 | 12.54 | 8.15 | 52 | 72 | 86 |
| Electro-Fenton 400 mA | 15.99 | 7.68 | 5.36 | 43 | 59 | 72 |
| Electro/FeII/PS/pH 3.0/O2 | 37.59 | 14.90 | 9.36 | 76 | 90 | 95 |
| Electro/FeII/PS/pH 5.7/O2 | 37.34 | 15.34 | 9.56 | 75 | 93 | 97 |
| Electro/FeII/PS/pH 3.0/N2 | 36.88 | 14.84 | 9.29 | 73 | 89 | 93 |
| Electro/FeII/PS/pH 5.7/N2 | 37.28 | 15.31 | 9.49 | 74 | 92 | 96 |
| Electro/PS/pH 3.0/O2 | 21.79 | 11.12 | 7.26 | 44 | 67 | 73 |
| Electro/PS/pH 5.7/O2 | 22.78 | 11.37 | 7.41 | 46 | 67 | 73 |
| Electro/PS/pH 3.0/N2 | 15.35 | 9.74 | 6.51 | 31 | 59 | 64 |
| Electro/PS/pH 5.7/N2 | 17.34 | 10.40 | 6.96 | 35 | 63 | 69 |
| Electro/FeII/PS/pH 3.0 | 37.67 | 14.53 | 9.02 | 81 | 93 | 96 |
| Electro/FeII/PS/pH 5.7 | 37.22 | 14.60 | 9.06 | 80 | 93 | 96 |
| Electro/PS/pH 5.7 | 15.98 | 9.13 | 7.79 | 34 | 58 | 68 |