

SUPPLEMENTARY MATERIAL TO
**Comparative mineralization of Basic Red 18 with
electrochemical advanced oxidation processes**

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TABLE S-I. Properties of BR18

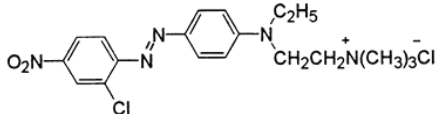
CAS Registry number	14097-03-1
Molecular structure	
Molecular formula	C ₁₉ H ₂₅ Cl ₂ N ₅ O ₂
Molecular weight	426.34
Chemical name	[2-[[4-[(2-chloro-4-nitrophenyl) azo]phenyl] ethylamino] ethyl] trimethylammonium
The water solubility	30 g L ⁻¹
Class	Mono azo dye

TABLE S-II. MCE and TOC removal values for different oxidation methods

System	MCE / %			TOC removal, %		
	1 h	3 h	5 h	1 h	3 h	5 h
FeII + PS	–	–	–	1 ± 1.42	4 ± 1.28	20 ± 1.67
Electro-Fenton 100 mA	30.09	31.35	22.95	21 ± 2.44	64 ± 1.98	77 ± 2.33
Electro-Fenton 200 mA	25.39	17.87	11.85	34 ± 3.01	75 ± 2.46	81 ± 2.71
Electro-Fenton 300 mA	23.22	12.54	8.15	52 ± 1.98	72 ± 2.55	86 ± 1.48
Electro-Fenton 400 mA	15.99	7.68	5.36	43 ± 2.78	59 ± 2.44	72 ± 2.68
Electro/FeII/PS/pH 3.0/O ₂	37.59	14.90	9.36	76 ± 2.41	90 ± 1.35	95 ± 2.66
Electro/FeII/PS/pH 5.7/O ₂	37.34	15.34	9.56	75 ± 1.98	93 ± 2.36	97 ± 2.64
Electro/FeII/PS/pH 3.0/N ₂	36.88	14.84	9.29	73 ± 1.74	89 ± 2.45	93 ± 2.12
Electro/FeII/PS/pH 5.7/N ₂	37.28	15.31	9.49	74 ± 3.06	92 ± 3.05	96 ± 2.76
Electro/PS/pH 3.0/O ₂	21.79	11.12	7.26	44 ± 3.12	67 ± 2.66	73 ± 2.05
Electro/PS/pH 5.7/O ₂	22.78	11.37	7.41	46 ± 3.03	67 ± 2.68	73 ± 2.78
Electro/PS/pH 3.0/N ₂	15.35	9.74	6.51	31 ± 2.65	59 ± 2.79	64 ± 2.34

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TABLE S-II. Continued

System	<i>MCE</i> / %			TOC removal, %		
	1 h	3 h	5 h	1 h	3 h	5 h
Electro/PS/pH 5.7/N ₂	17.34	10.40	6.96	35 ± 2.49	63 ± 3.24	69 ± 3.11
Electro/FeII/PS/pH 3.0	37.67	14.53	9.02	81 ± 3.15	93 ± 3.12	96 ± 2.74
Electro/FeII/PS/pH 5.7	37.22	14.60	9.06	80 ± 3.10	93 ± 1.98	96 ± 2.33
Electro/PS/pH 5.7	15.98	9.13	7.79	34 ± 2.84	58 ± 2.16	68 ± 3.15