

Treatment of sugar industry effluent using electrocoagulation process:
Process optimization using response surface methodology

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Table S-1. Parameters of sugar industry wastewater

S.No.	Parameter*	Sahu et al., 2015 ⁸	Kolhe et al., 2009 ³	Present study
1	pH	5.5	6.5-8.8	4.85
2	BOD	-	300-2500	-
3	COD	3682	1500-2800	3200
4	DO	-	0-2.0	-
5	TS	1987	870-2000	2240
6	TDS	1447	400-1650	1436
7	SS	540	220-800	804
8	Cl	50	18-40	225
9	S	-	40-70	37.5
10	Oil & Grease	-	60-100	-
11	Color	Dark brown	Dark yellow	
12	Phosphate	5.9	-	0.73
13	Hardness	900	-	720
14	Protein	43	-	-

*All values in mg dm⁻³, except for pH.

Table S-2. Reactor and electrode specification.

Reactor	Specification
Make	Perspex glass
Volume (dm ³)	1.72
Electrode gap (mm)	25
No. of electrode	4
Mode of operation	batch
Stirring mechanism (length × diameter, mm)	Magnetic bar (25 × 5)
Mixing/reaction time (min)	50-100
Electrodes	
Material (Anode and Cathode)	Iron (MS)
Shape	Rectangular
Size of each plate (mm)	85 x 120
Thickness (mm)	2
Effective size (<i>L</i> x <i>H</i> , mm)	85 x 80
Plate arrangement	Parallel

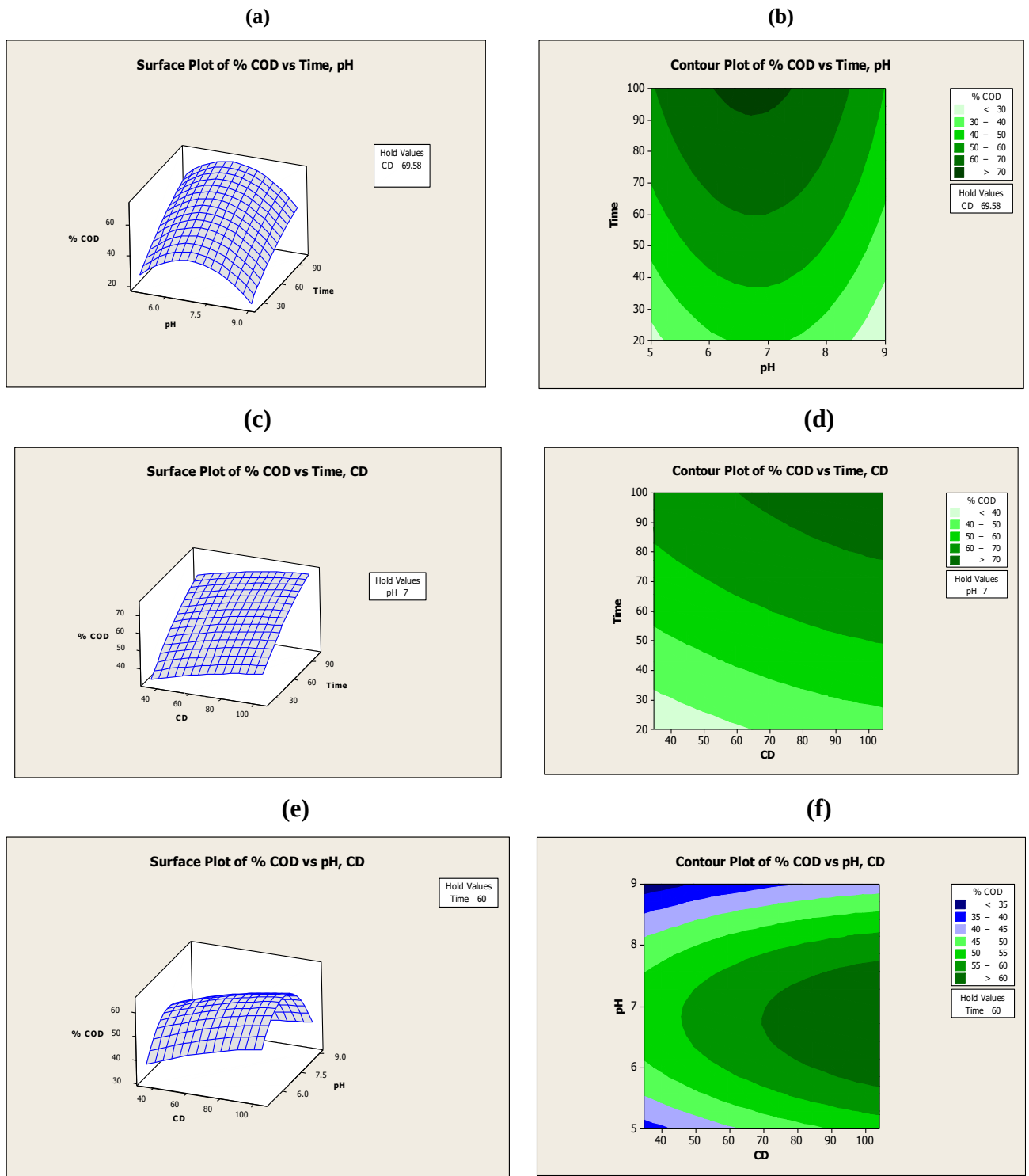


Fig. S-3 Three dimensional response surface graphs for *COD* removal (%) in EC treatment of SIE