SUPPLEMENTARY MATERIAL

TABLE SI. ANN structure and performance used for prediction of the decolourisation process for textile dyes RO 16, RB 19 and DR 28

Dye		RO 16	RB 19	DR 28
Inputs		t (min), Q (dm^3/min), % O_2		
Number of neurons	Input	3	3	3
	Pattern	40	34	77
	Summation	2	2	2
	Output	1	1	1
Outputs		Decolourisation efficiency (A/A_0)		
Performance metrics				
RMSE[a]		0.045	0.091	0.055
MAE[b]		0.027	0.077	0.037
Dataset			Data points	
Training		40	34	77
Validation		12	10	21
Test		9	6	10

[a] Root Mean Square Error [40], [b] Mean Absolute Error [40]

TABLE SII a. Descriptive statistics of the model for entire dataset and created subsets for RO 16

Input/	Training				Validation				Test			
Output	M[a]	S. E[b]	Min	Max	M[a]	S. E[b]	Min	Max	M[a]	S. E[b]	Min	Max
t (min)	24.9	3.5	0	90	18.9	4.7	2	60	18.4	6.4	0	45
Q (dm^3/min)	4.1	0.3	1.0	8.0	4.2	0.6	1.0	8.0	4.6	0.7	1.0	8.0
% O_2	0.01	0.00	0.00	0.05	0.02	0.01	0	0.05	0.01	0.00	0.00	0.02
A/A_0	0.38	0.05	0.00	1.00	0.41	0.08	0.00	0.87	0.50	0.14	0.02	1.00

TABLE SII b. Descriptive statistics of the model for entire dataset and created subsets for RB 19

Input/	Training				Validation				Test			
Output	M[a]	S. E[b]	Min	Max	M[a]	S. E[b]	Min	Max	M[a]	S. E[b]	Min	Max
t (min)	18.5	3.4	0	90	37.9	12.7	2	120	17.0	8.9	2	60
Q (dm^3/min)	4.2	0.4	1.0	8.0	4.0	1.0	1.0	8.0	4.2	0.9	1.0	8.0
% O_2	0.01	0.00	0	0.05	0.00	0.00	0.00	0.02	0.02	0.01	0.00	0.05
A/A_0	0.41	0.06	0.00	1.00	0.33	0.10	0.00	0.89	0.30	0.14	0.00	0.84

TABLE SII c. Descriptive statistics of the model for entire dataset and created subsets for DR 28

Input/	Training				Validation				Test			
Output	M[a]	S. E[b]	Min	Max	M[a]	S. E[b]	Min	Max	M[a]	S. E[b]	Min	Max
t (min)	68.4	79.6	0	330	64.3	13.0	0	180	108	29.2	5	240
Q (dm^3/min)	4.0	2.0	1.0	8.0	4.1	0.4	1.0	8.0	3.4	0.4	1.0	4.0
% O_2	0.03	0.04	0.00	0.10	0.02	0.01	0.00	0.10	0.01	0.01	0.00	0.05
A/A_0	0.39	0.30	0.02	1.00	0.37	0.06	0.04	1.00	0.28	0.08	0.06	0.81

[a] Mean Value; [b] Standard Error