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Supporting Information

Table ESI1. Basic chemical information of congored

Common Name	Congored
Abbreviation	CR
Other name	Direct red 28
Class	Azo
Colour as solid	Red-brown powder
Colour as solution	Red-brown (basic medium), blue (acid medium)
Colour Index	22120
Molecular Formula	$C_{32}H_{22}N_6Na_2O_6S_2$
Molecular weight (g/L)	696.66
$\lambda \max(nm)$	497
Structure	$ \begin{array}{c} NaD_{N} \\ O^{S} \\ NH_2 \end{array} \\ NH_2 \\ NH_2 \\ O^{S} \\ O^{S} \\ O^{S} \\ O^{S} \\ Na^{T} \end{array} $

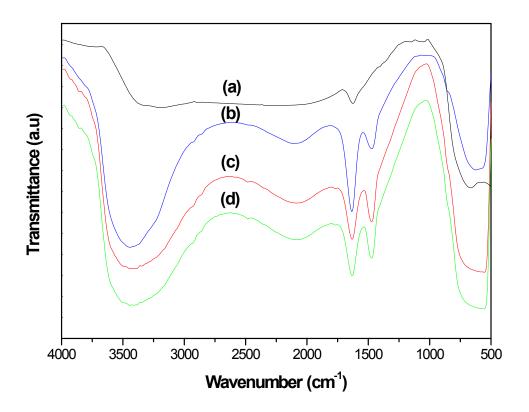


Figure ESI1 FTIR spectra of (a) bare $TiO_{2,}$ (b) ST, (c) NiST and d) RuST

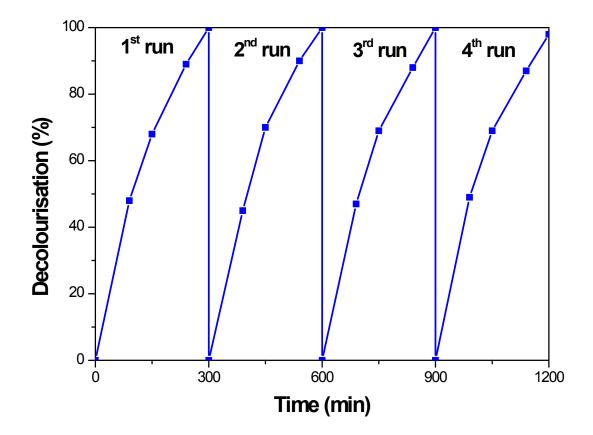


Figure ESI2 Recyclability of NiST in the decolourisation of CR