

Table S1 The refined structural parameters of $\text{BiFe}(\text{CN})_6 \cdot 4\text{H}_2\text{O}$ at room temperature.

Atom	Site	x	y	z	B ($\text{\AA}^2$)	Occupancy
Bi	4c	0	0.32438(9)	0.25	1.194(2)	0.25
Fe	4a	0	0	0	1.374(10)	0.25
C1	16h	0.18843(7)	0.04627(5)	0.58785(3)	1.545(40)	1
C2	8f	0	0.13699(21)	0.06037(18)	2.263(72)	0.5
N1	16h	0.20553(7)	0.42427(5)	0.14045(3)	3.484(43)	1
N2	8f	0	0.21779(21)	0.09437(18)	2.857(65)	0.5
O1	8g	0.27829(30)	0.21145(18)	0.25	1.908(42)	0.5
O2	8f	0	0.3433(21)	0.60069(13)	2.063(30)	0.5

Space group: $Cmcm$, $Z = 4$, $a = 7.45180(5) \text{ \AA}$, $b = 12.85009(9) \text{ \AA}$, $c = 13.67722(9) \text{ \AA}$,
 $V = 1309.681(0.015) \text{ \AA}^3$; $R_p = 1.94\%$, $R_{wp} = 2.73\%$, $R_{exp} = 2.59\%$, $\chi^2 = 1.11$.

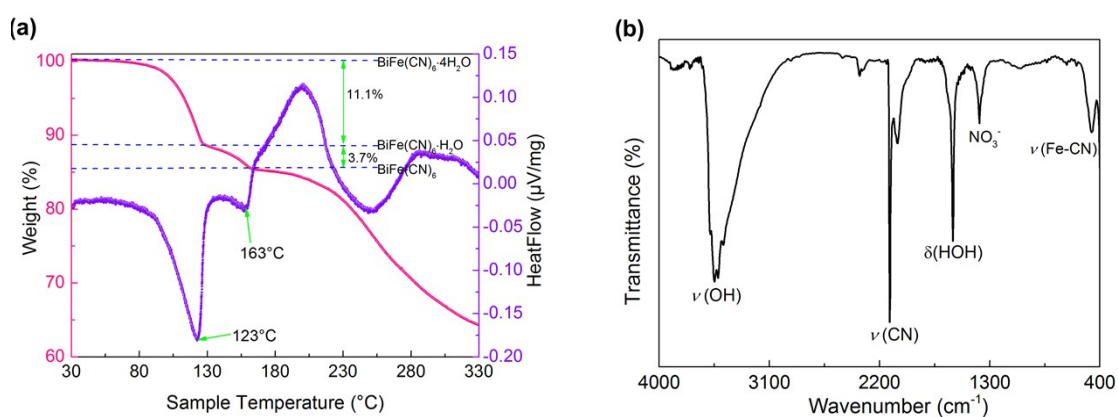


Fig. S1 (a) TG-DSC curves and (b) FT-IR spectroscopy of $\text{BiFe}(\text{CN})_6 \cdot 4\text{H}_2\text{O}$.

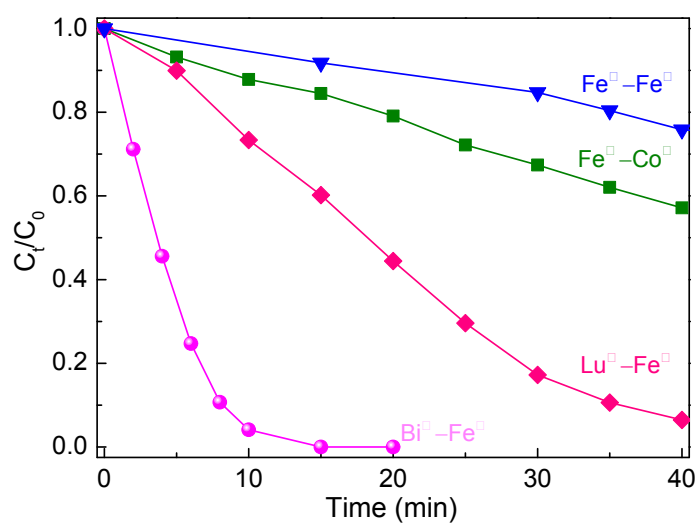


Fig. S2 Degradation of RhB under different catalysts. Experimental conditions: [RhB] = 10 mg/L, [H₂O₂] = 5 mM, [catalyst] = 0.1 g/L, [T] = 30 °C.

Table S2 The properties of the present catalyst and the previous reported ones for the RhB degradation during the heterogeneous photo-Fenton process.

Catalyst	RhB (mg L ⁻¹)	H ₂ O ₂ (mmol L ⁻¹)	Catal (g L ⁻¹)	pH	Irradiation source	T (K)	rate constants (min ⁻¹)	Degradation (%)	Reference
Graphite tailings	100	300	50	5	-	303	0.19	80	[1]
Bi ₂₅ FeO ₄₀	10	10	1	3	<i>Vis</i>	-	0.02	90	[2]
BiFeO ₃	10	10	0.5	3	<i>UV-Vis</i>	-	0.06	100	[3]
MIL-53(Fe)	10	20	0.4	5	<i>Vis</i>	-	0.08	100	[4]
Fe ^{II} -Co PBA	12	4	0.2	5	<i>Vis</i>	308	0.1	100	[5]
Fe ^{III} -Co PBA	12	40	0.2	5	<i>Vis</i>	308	0.03	100	[5]
Bi ^{III} -Fe ^{III} PBA	10	5	0.1	5	<i>Vis</i>	303	0.5	100	This work

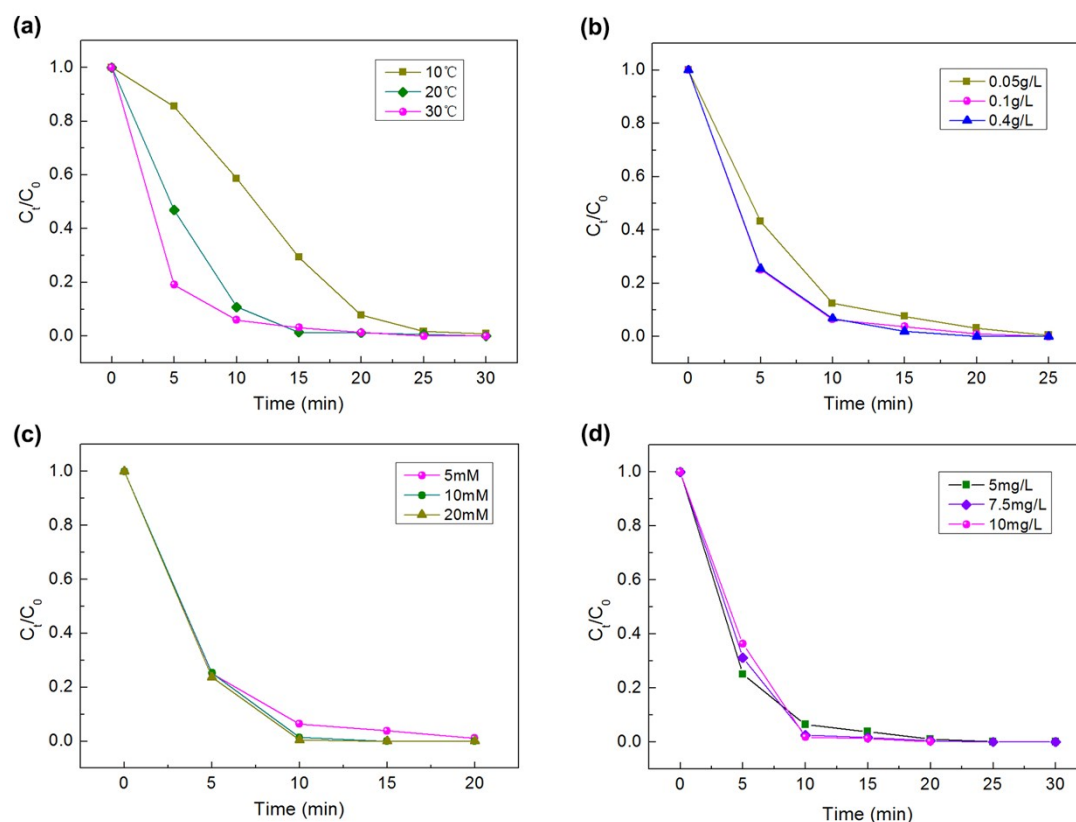


Fig. S3 Effect of (a) reaction temperature, (b) catalyst concentration, (c) H_2O_2 dosage, and (d) initial RhB concentration on the degradation of RhB.

References

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