SUPPLEMENTARY MATERIALS

Catalytic Activity of Zn(II) Coordination Polymer Based on a Cyclotriphosphazene-Functionalized Ligand for Removal of Organic Dyes

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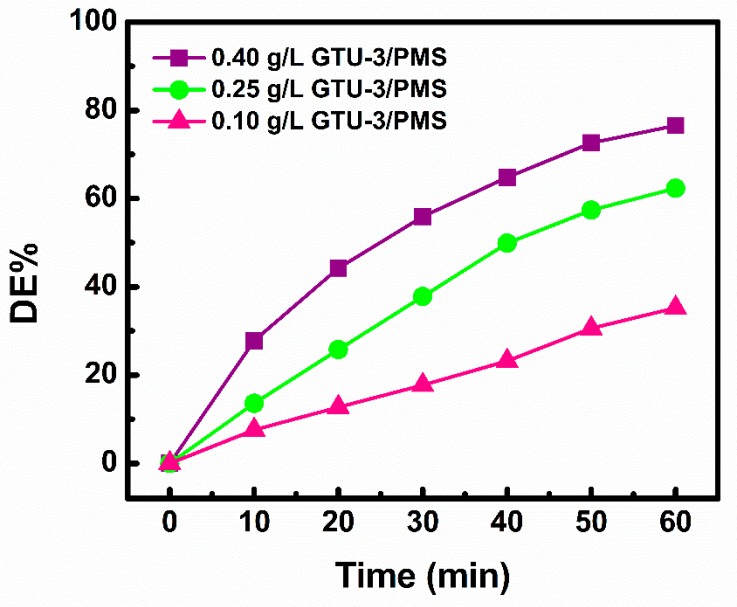

Figure S1. Catalytic degradation of RhB using **GTU-3** along with PMS, $[RhB]_0$ = 10 ppm (50 mL), [PMS]= 0.5 mM at different catalyst concentrations.

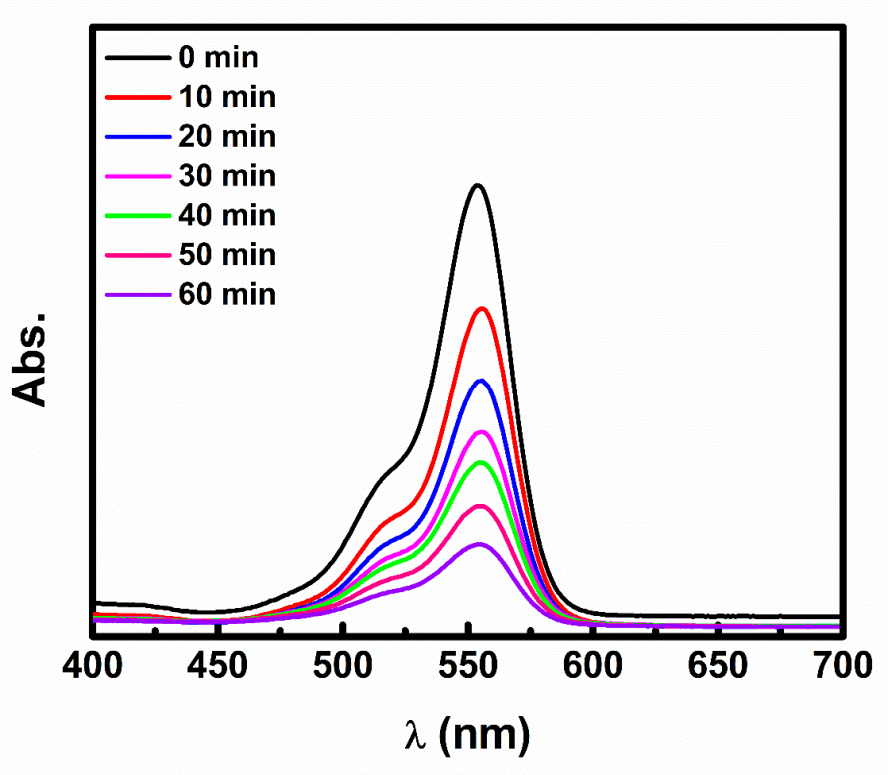

Figure S2. Absorption spectra of RhB degradation for **GTU-3**, $[RhB]_0$ = 10 ppm (50 mL), [PMS]= 0.5 mM, catalyst= 0.4 g/L.

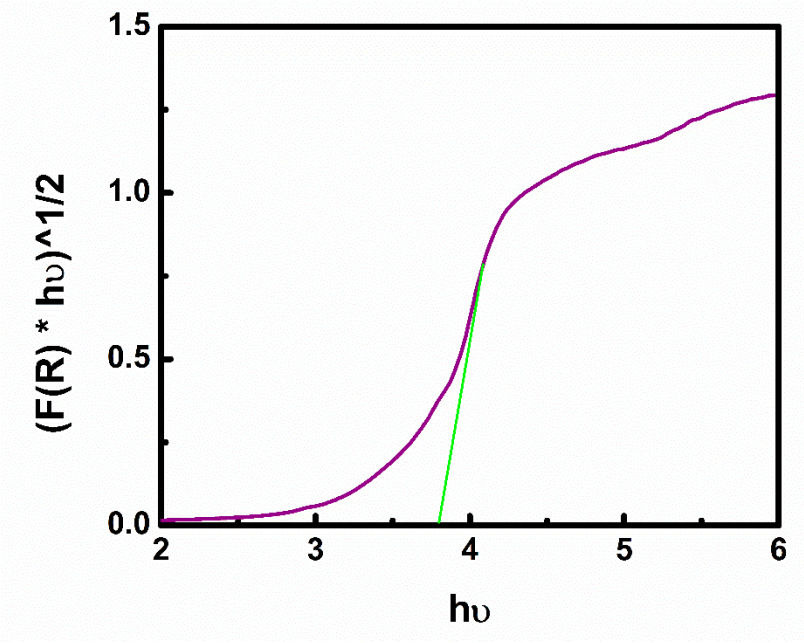

Figure S3. Band gap energy of **GTU-3** calculated from the reflection data.

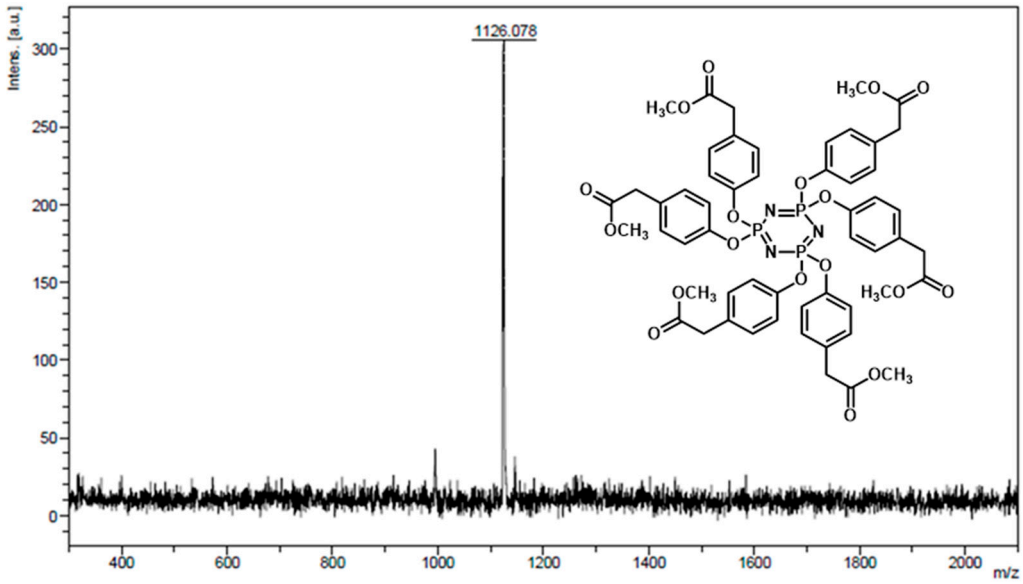

Figure S4. MALDI MS Spectrum of $N_3P_3(OC_6H_4CH_3COOCH_3)_6$.

Table S1. Selected bond lengths (Å) and bond angles (°) for **GTU-3**.

Bond lengths (Å)					
Zn1—O28^{viii}	2.015 (5)	Zn2—O15^{v}	1.965 (5)	Zn3—O21	2.020 (5)
Zn1—O2^{vi}	1.977 (5)	Zn2—O20	1.936 (5)	Zn3—O33^{i}	1.985 (5)

Zn1—O10	1.965 (6)	Zn2—O19	1.934 (5)	Zn3—N9	2.135 (6)
Zn1—N4	2.122 (14)	Zn2—O6^{v}	1.934 (6)	Zn3—O18	1.959 (7)
Zn1—O25^{iv}	2.136 (6)	Zn5—O27^{iii}	1.929 (5)	Zn3—O7^{v}	2.091 (6)
Zn4—O30^{i}	1.919 (5)	Zn5—O34	1.952 (5)	Zn6—O36^{vi}	1.993 (5)
Zn4—O1^{ii}	1.957 (5)	Zn5—O9^{iv}	1.930 (6)	Zn6—O16^{vi}	2.022 (5)
Zn4—O37	1.922 (5)	Zn5—O24	1.971 (5)	Zn6—O31	1.995 (6)
Zn4—O13^{ii}	1.949 (5)	Zn6—O12^{vii}	2.093 (5)	Zn6—N10^{vi}	2.154 (6)
P1—N3	1.571 (7)	P2—N2	1.566 (7)	P3—N3	1.576 (7)
P1—N1	1.565 (6)	P2—N1	1.582 (6)	P3—N2	1.598 (6)
P6—N8	1.572 (6)	P4—N7	1.579 (6)	P5—N7	1.582 (5)
P6—N6	1.578 (5)	P4—N6	1.586 (6)	P5—N8	1.589 (6)
Bond angles (°)					
O28viii—Zn1—N4	86.4 (8)	O20—Zn2—O15^{v}	101.1 (2)	O21—Zn3—N9	88.2 (2)
O28viii—Zn1—O25iv	85.4 (2)	O19—Zn2—O15^{v}	102.1 (2)	O21—Zn3—O7^{v}	83.5 (2)
O28viii—Zn1—N4A	89.8 (4)	O19—Zn2—O20	118.3 (2)	O33^{i}—Zn3—O21	137.5 (2)
O2vi—Zn1—O28viii	133.0 (2)	O19—Zn2—O6^{v}	115.6 (3)	O33^{i}—Zn3—N9	88.1 (2)
O2vi—Zn1—N4	92.1 (10)	O6^{v}—Zn2—O15^{v}	103.2 (3)	O33^{i}—Zn3—O7^{v}	83.4 (2)
O2vi—Zn1—O25iv	84.3 (2)	O6^{v}—Zn2—O20	113.2 (3)	O18—Zn3—O21	108.0 (3)
O2vi—Zn1—N4A	88.5 (4)	O21—Zn3—N9	88.2 (2)	O18—Zn3—O33^{i}	114.5 (2)
O10—Zn1—O28viii	110.8 (2)	O21—Zn3—O7^{v}	83.5 (2)	O18—Zn3—N9	92.5 (2)
O10—Zn1—O2vi	116.2 (2)	O33^{i}—Zn3—O21	137.5 (2)	O18—Zn3—O7^{v}	110.9 (2)
O10—Zn1—N4	91.6 (14)	O33^{i}—Zn3—N9	88.1 (2)	O7^{v}—Zn3—N9	156.5 (3)

O10—Zn1—O25iv	103.2 (2)	O33^{i}—Zn3—O7^{v}	83.4 (2)	O30^{i}—Zn4—O1^{ii}	100.6 (2)
O10—Zn1—N4A	92.0 (5)	O18—Zn3—O21	108.0 (3)	O30^{i}—Zn4—O37	116.2 (2)
N4—Zn1—O25iv	164.9 (13)	O18—Zn3—O33^{i}	114.5 (2)	O30^{i}—Zn4—O13^{ii}	114.0 (2)
N4A—Zn1—O25iv	164.8 (5)	O18—Zn3—N9	92.5 (2)	O37—Zn4—O1^{ii}	95.5 (2)
O27^{iii}—Zn5—O34	102.9 (2)	O18—Zn3—O7^{v}	110.9 (2)	O37—Zn4—O13^{ii}	119.5 (2)
O27^{iii}—Zn5—O9^{iv}	119.6 (2)	O7^{v}—Zn3—N9	156.5 (3)	O13^{ii}—Zn4—O1^{ii}	106.3 (2)
O27^{iii}—Zn5—O24	119.5 (2)	O36^{vi}—Zn6—O16^{vi}	138.6 (2)	O16^{vi}—Zn6—N10^{vi}	87.3 (2)
O34—Zn5—O24	105.0 (2)	O36^{vi}—Zn6—O31	111.9 (2)	O16^{vi}—Zn6—O12^{vii}	85.2 (2)
O9^{iv}—Zn5—O34	93.8 (2)	O36^{vi}—Zn6—N10^{vi}	89.4 (2)	O31—Zn6—O16^{vi}	109.1 (2)
O9^{iv}—Zn5—O24	110.8 (2)	O36^{vi}—Zn6—O12^{vii}	100.0 (2)	O31—Zn6—N10^{vi}	87.4 (2)
P1—N3—P3	123.6 (4)	N3—P3—N2	117.0(4)	O31—Zn6—O12^{vii}	89.7 (2)
P2—N2—P3	121.0 (4)	N2—P2—N1	118.0(4)	O12^{vii}—Zn6—N10^{vi}	170.6 (3)
P1—N1—P2	122.8 (4)	N1—P1—N3	115.9 (4)	N7—P4—N6	117.5(3)
P4—N7—P5	120.2(4)	N7—P5—N8	116.8(3)	N8—P6—N6	118.3(3)
P6—N8—P5	121.6(3)	P6—N6—P4	120.7(4)		

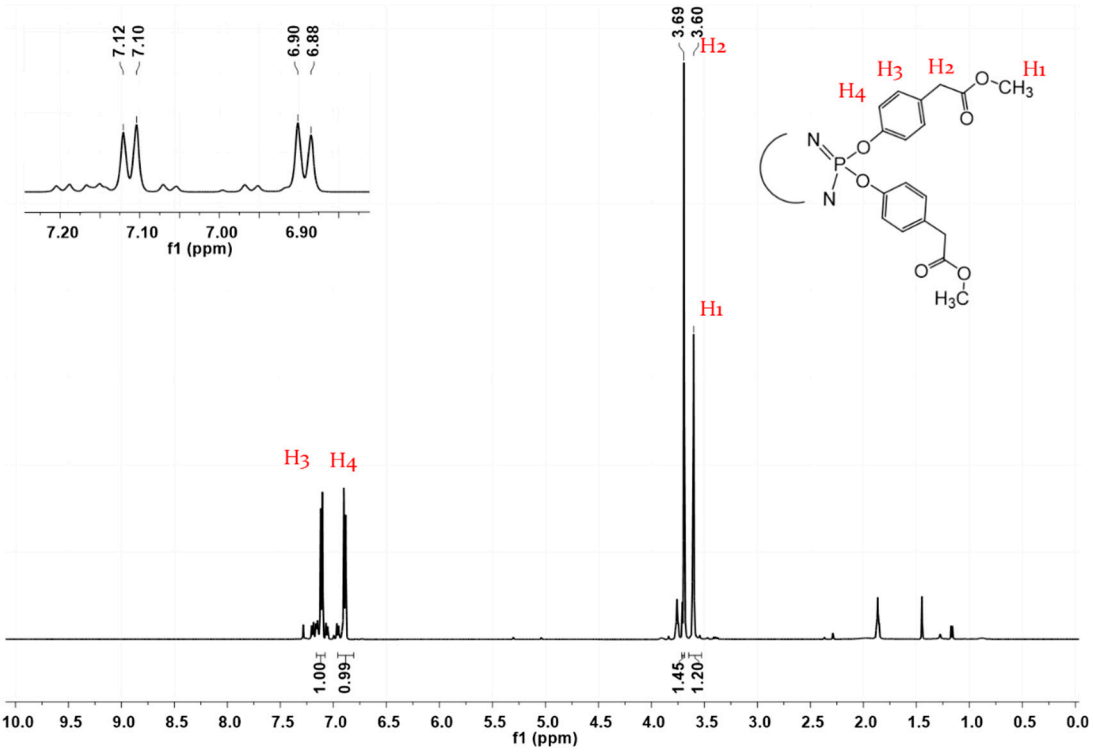

Figure S5. ^{1}H-NMR spectra of compounds $N_3P_3(OC_6H_4CH_3COOCH_3)_6$ in DMSO-d_6.

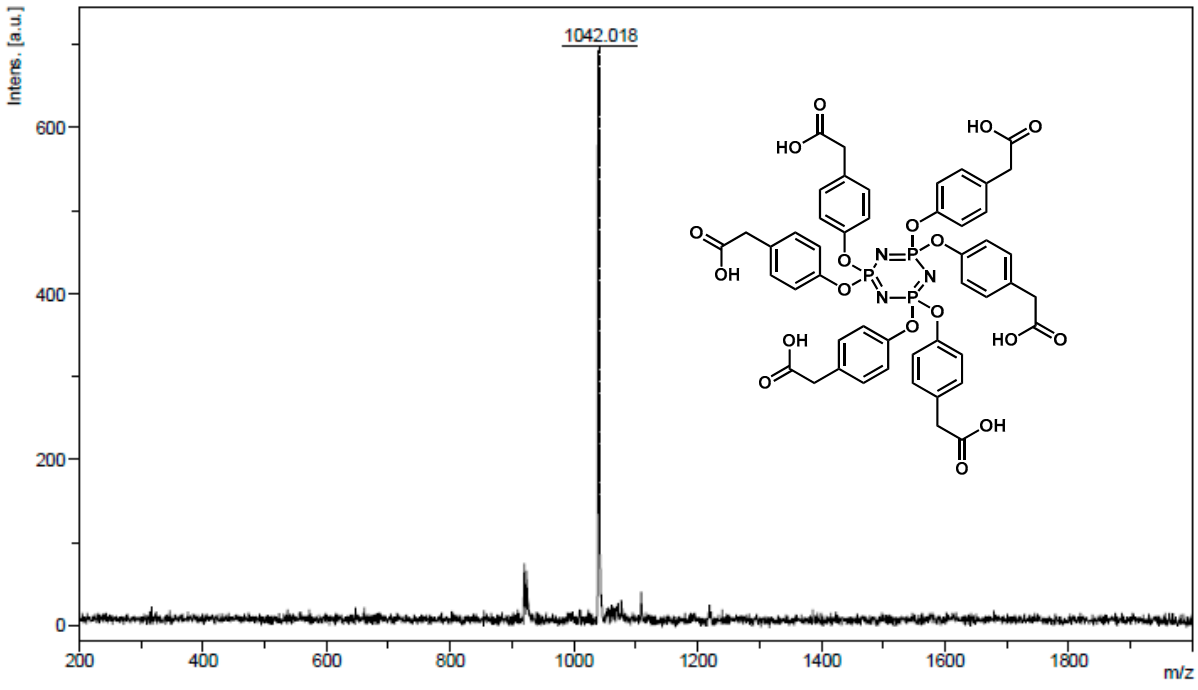

Figure S6. MALDI MS Spectrum of $\mathbf{H_6L_1}$.

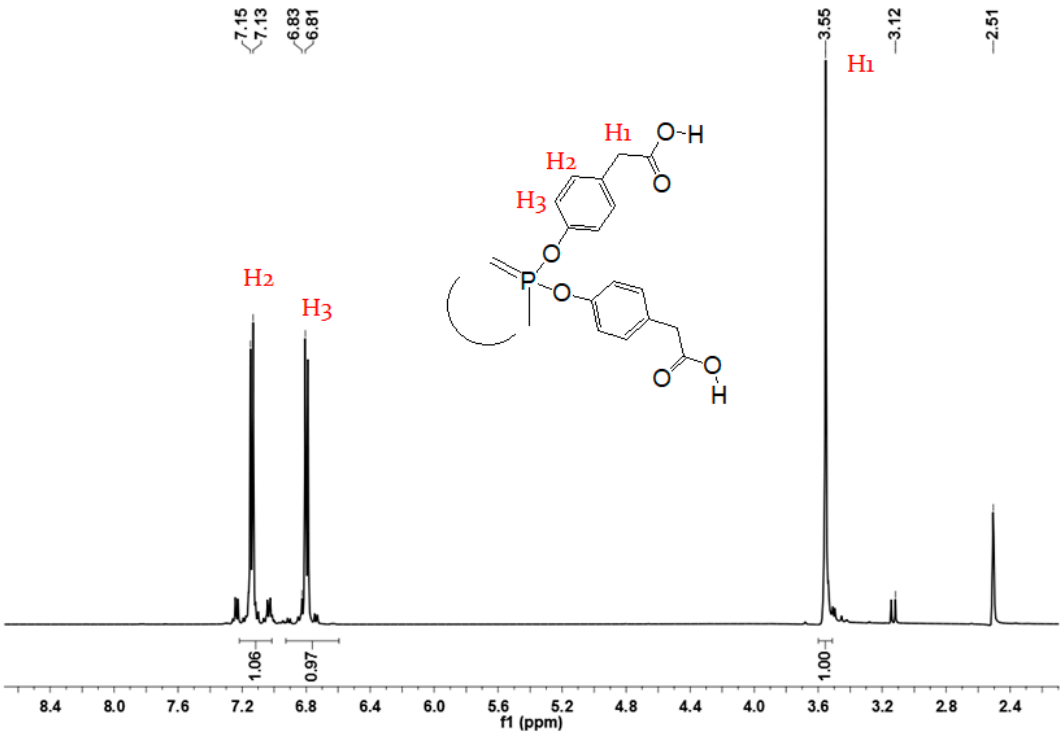

Figure S7. ^{1}H-NMR spectra of compounds $\mathbf{H_6L_1}$ in DMSO-d_6.

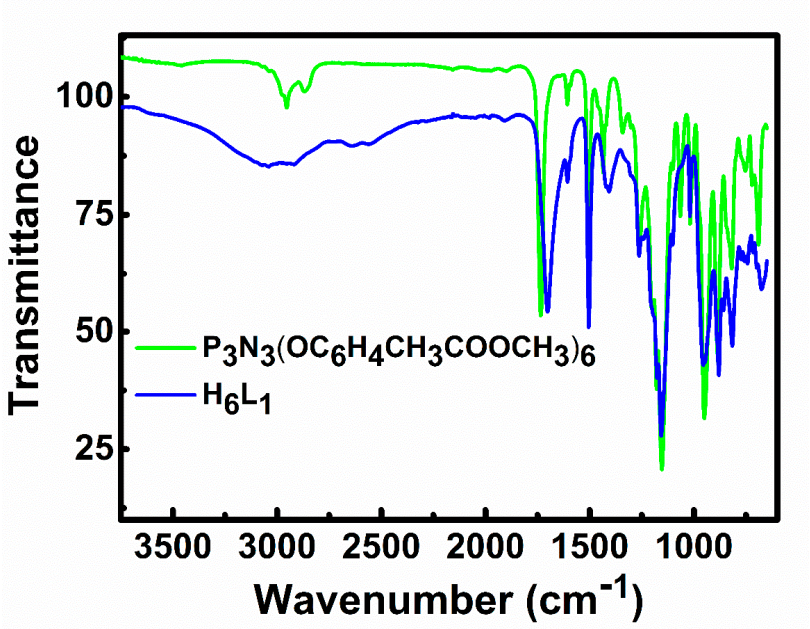

Figure S8. FTIR spectrum of the synthesized $N_3P_3(OC_6H_4CH_3COOCH_3)_6$ and $\mathbf{H_6L_1}$.