## Synthesis of a Novel Six-metal-containing Sandwich-type Cluster and Its Catalytic Electron Transfer Property

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Figure S1. XPS of W in compound (H<sub>9</sub>-1). Figure S2. XPS of Sb in compound (H<sub>9</sub>-1).



Figure S3. Degradation reactions of RhB in the presence of (H<sub>9</sub>-1) in darkness.



Figure S4. Degradation reaction of RhB in the absence of (H<sub>9</sub>-1) in darkness.



Figure S5. IR spectrum of (H<sub>9</sub>-1) after the photocatalytic degradations of RhB with 2 repeated experiments.



Figure S6. a) Photocatalytic degradation of RhB in the presence of (H<sub>9</sub>-1) with 1 repeated experiments; b) The UV-visible absorption spectrum of H<sub>9</sub>-1.



Figure S7. Photocatalytic degradation of RhB in the presence of (H<sub>9</sub>-1) with 2 repeated experiments.



Figure S8. Catalytic reduction of  $Fe(CN)_6^{3-}$  in the presence of  $(H_9-1)$  with 1 repeated experiments.



Figure S9. IR spectrum of (H<sub>9</sub>-1) after the catalytic reduction of Fe(CN)<sub>6</sub><sup>3-</sup>.



Figure S10. XRD curves of (H<sub>9</sub>-1).

Figure S11. TG plot of (H<sub>9</sub>-1).