Synthesis of nano-sized tungsten oxide particles encapsulated in a hollow silica sphere and their photocatalytic properties for decomposition of acetic acid using Pt as co-catalyst

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Fig. S1 XRD patterns of (a) CaWO₄, (b) H₂WO₄ and (c) WO₃.



Fig.S2 TG–DTA curves of the H₂WO₄@SiO₂.



Fig. S3 Time course for CO₂ evolution during photocatalytic decomposition of acetic acid over $Pt/WO_3(B)$ under full-arc light irradiation. One μ l of acetic acid was added into the reactor at 240 minutes.



Fig. S4 Time courses of CO₂ evolution, acetic acid decomposition and methanol production during photocatalytic decomposition of acetic acid over (a) Pt/WO₃@SiO₂ and (b) Pt/WO₃(B) under full-arc light irradiation. For the analysis of the intermediates, the reaction was carried out under a weak light intensity condition.