Tubular Structural Construction and Compositional Modulation of MoS_2-based Hybrids for High-performance Catalytic Application

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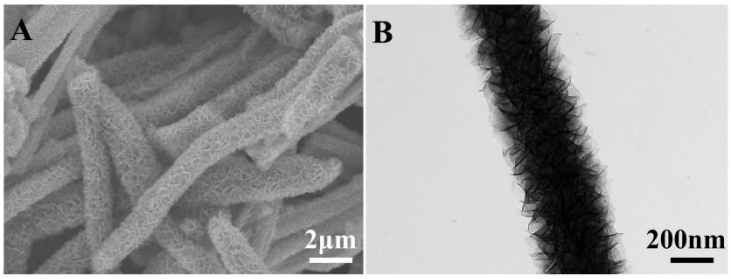

Figure S1 The SEM(A) and TEM(B) imagines of APTES@MoS_2

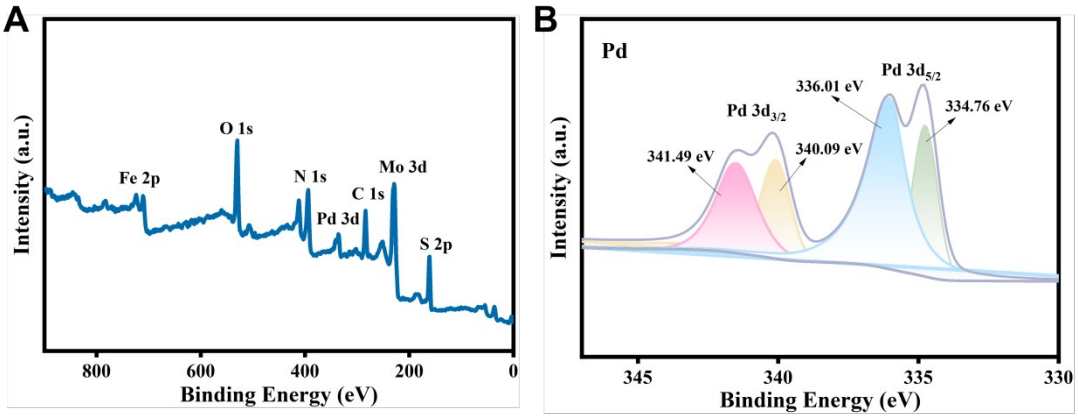

Figure S2(A) XPS spectrum of Survey of Fe-MoS_2/Pd@CAPTES, (B) XPS spectrum of Pd 3d of Fe-MoS_2/Pd@CAPTES

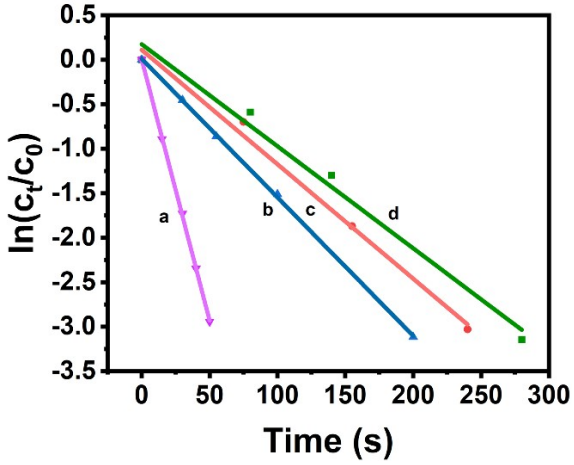

Figure S3 The fitting curve of ln (C_t/C_0) and time by Fe-MoS_2/Pd@CAPTES(a)，Fe-MoS_2@CAPTES(b), Ni-MoS_2@CAPTES(c), Co-MoS_2@CAPTES(d).

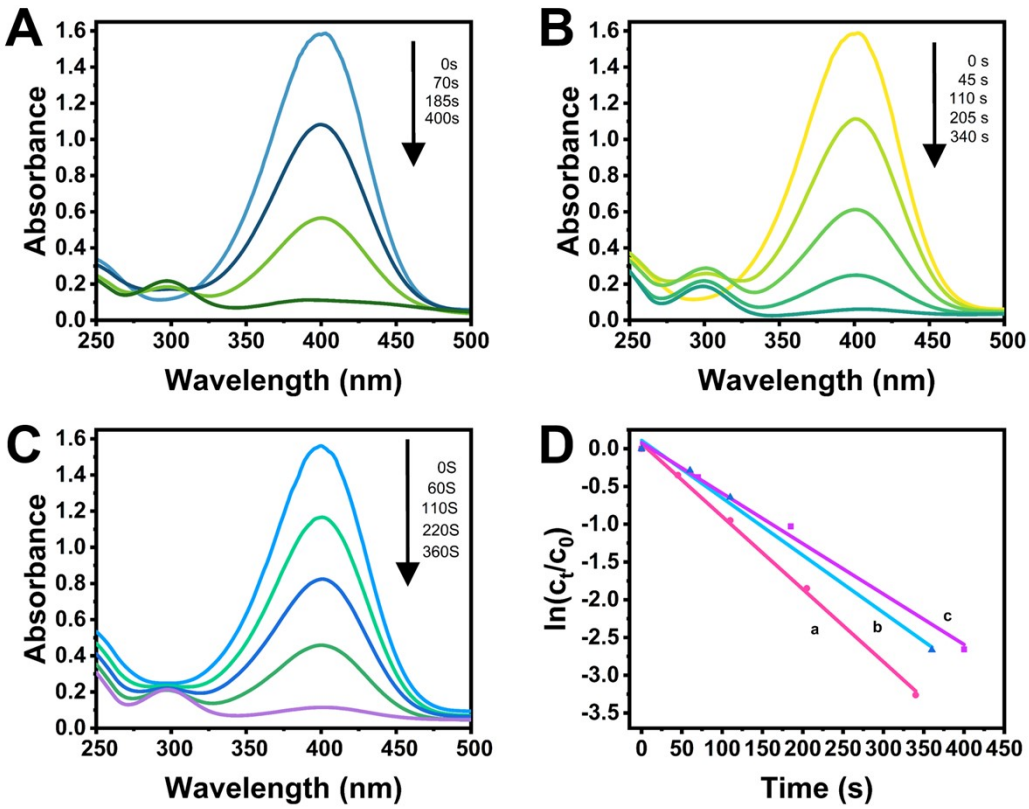

Figure S4 UV-vis absorption spectra during the reduction of 4-NP using (A) APTES@MoS_2 /Co^{2+}, (B) APTES@MoS_2/Fe^{3+}, (C) APTES@MoS_2/Ni^{2+}, and (D) Fe-MoS_2/Pd@CAPTES. (D) The fitting curve of ln(C_t/C_0) and time by APTES@MoS_2/Fe^{3+}(a), APTES@MoS_2/Ni^{2+}, APTES@MoS_2/Co^{2+} (c).

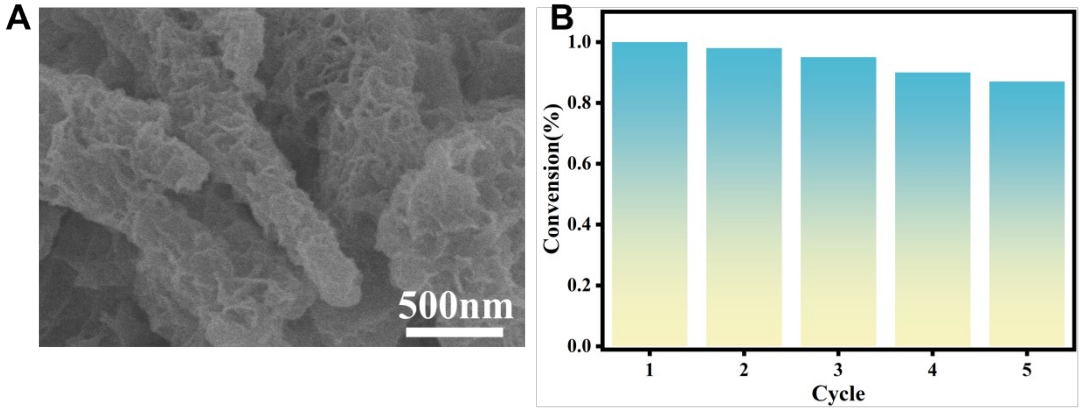

Figure S5 (A, B) The SEM images of Fe-MoS_2/Pd@CAPTES after five catalytic reactions. (C) The cycle test of the representative Fe-MoS_2/Pd@CAPTES