Supplementary Information

Heterolytic alkene oxidation with H_2O_2 catalyzed by Nb-substituted Lindqvist tungstate immobilized on carbon nanotubes

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Table S1. Elemental analysis and textural data for CNTs and N-CNTs supports and representative supported $HNb(O_2)W_5$ catalysts

Catalyst/Support	N (at%)	POM (wt%)	S_{BET} (m^2/g)	V_{pore} (cm^3/g)
CNTs	0	-	150	0.70
N-CNTs	0.9	-	161	0.64
N-CNTs	4.8	-	157	0.53
$HNb(O_2)W_5$/CNTs	0	15	118	0.33
$HNb(O_2)W_5$/N-CNTs	0.9	15	124	0.39

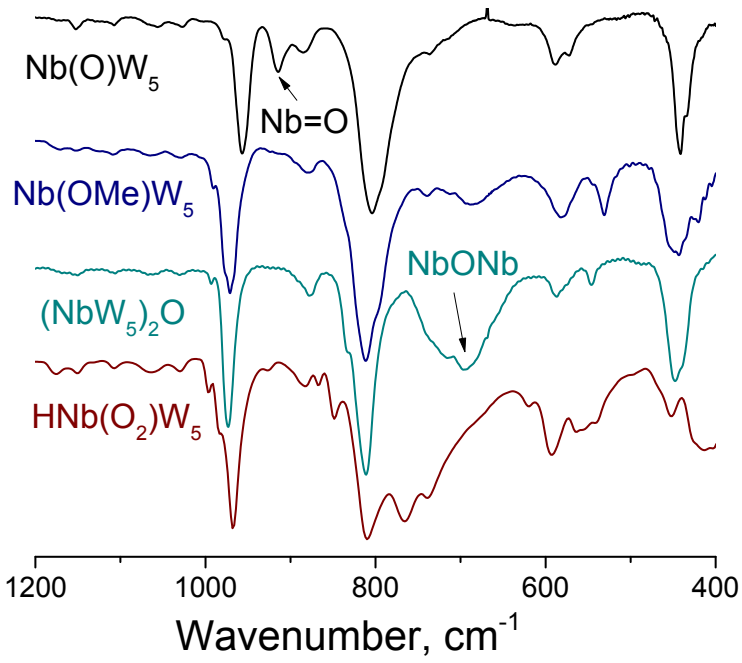

Fig. S1. FT-IR spectra of $(Bu_4N)_3[Nb(O)W_5O_{18}]$ ($Nb(O)W_5$), $(Bu_4N)_2[(CH_3O)NbW_5O_{18}]$ ($Nb(OCH_3)W_5$), $(Bu_4N)_4[(NbW_5O_{18})_2O]$ ($(NbW_5)_2O$), and $(Bu_4N)_2[HNb(O_2)W_5O_{18}]$ ($HNb(O)_2W_5$).

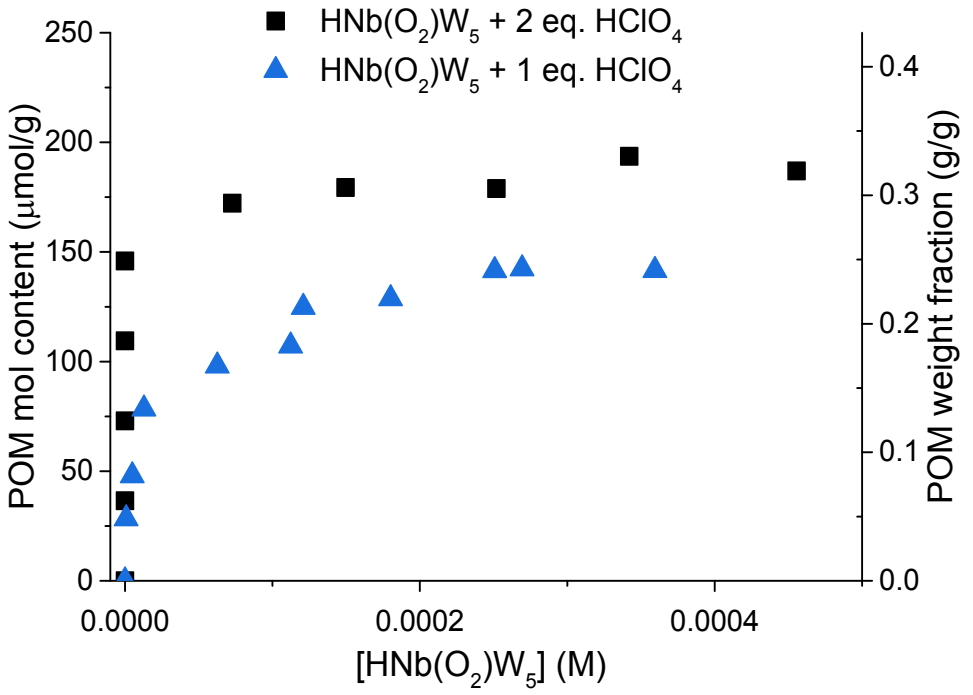

Fig. S2. Effect of $HClO_4$ on adsorption of $HNb(O_2)W_5$ on N-CNTs (MeCN, 25 °C).

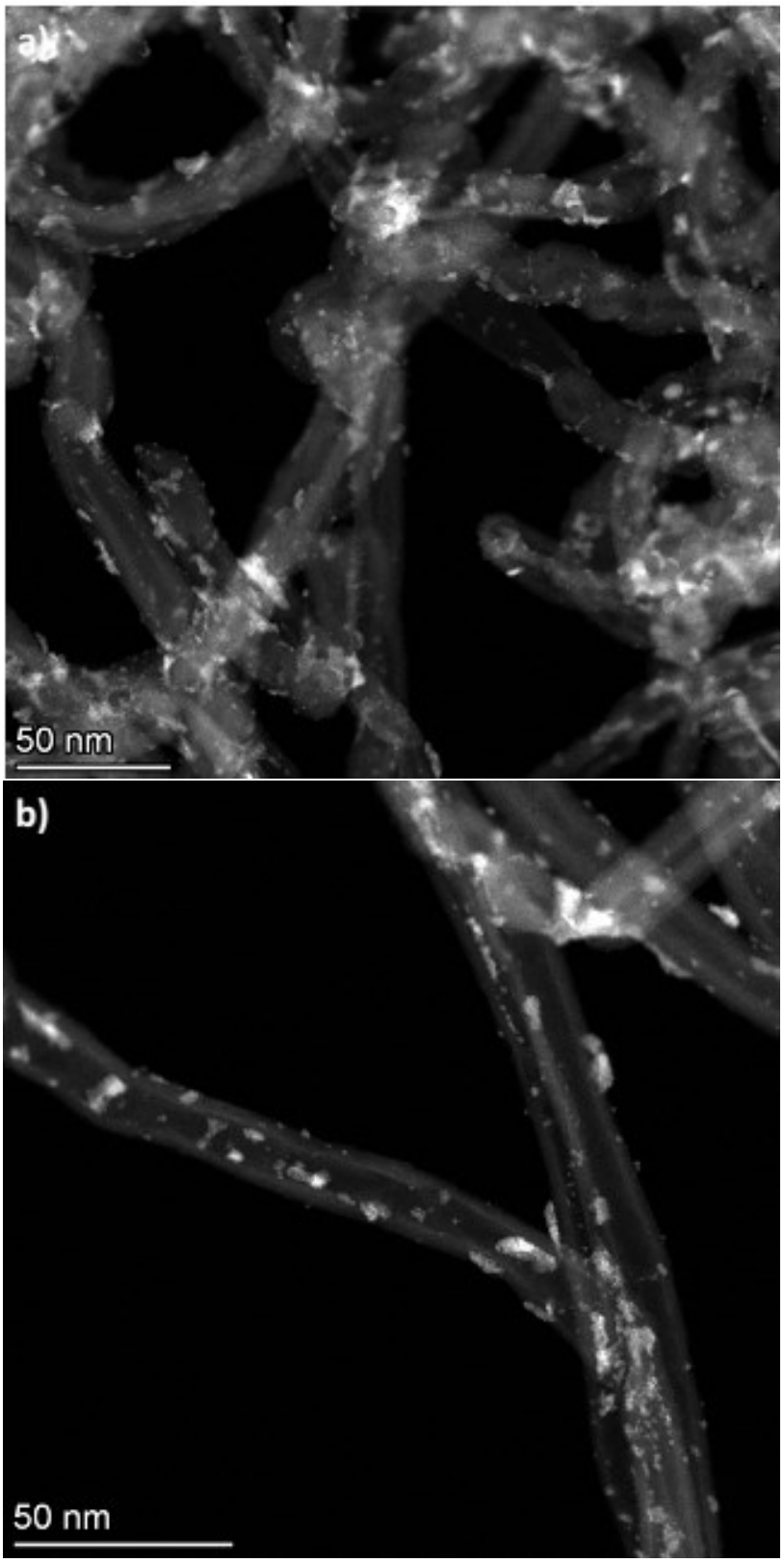

Fig. S3. HAADF-STEM images of 15 wt% $HNb(O_2)W_5$/CNTs.

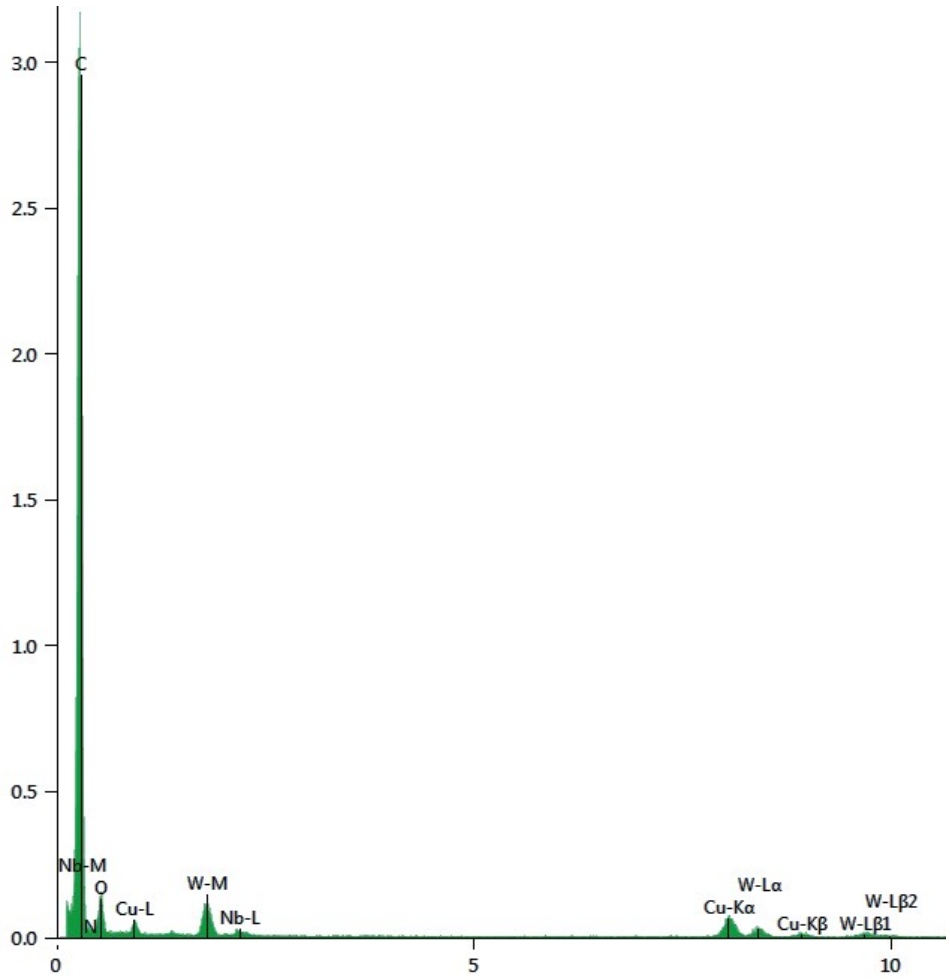

Fig. S4. EDX spectrum of 15 wt% $HNb(O_2)W_5$/CNTs.