Rational Designing of NiO Nanoparticles Anchored PEG-WO_3 for Enhanced Water Oxidation Performance.

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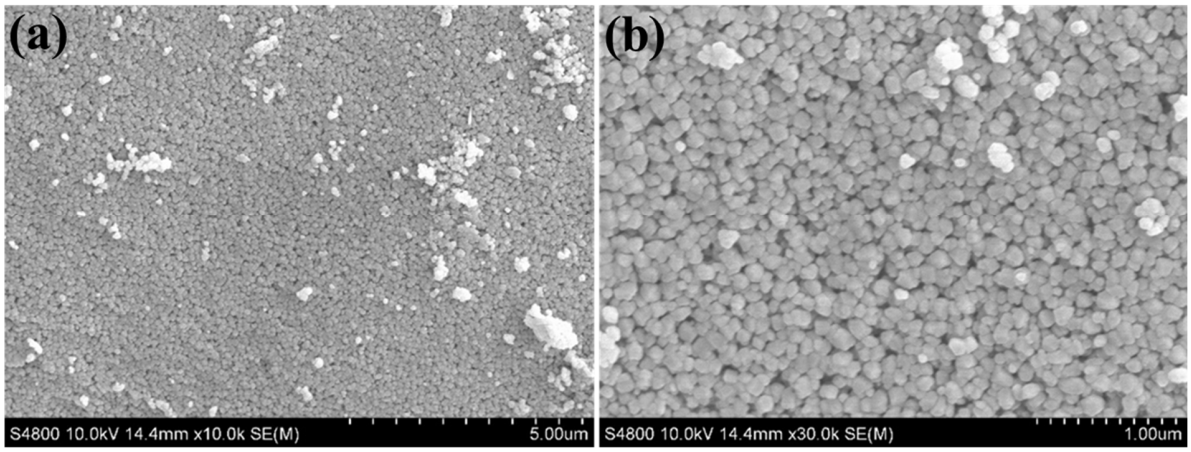


Figure S1: (a,b) SEM micrograph images of WO_3.

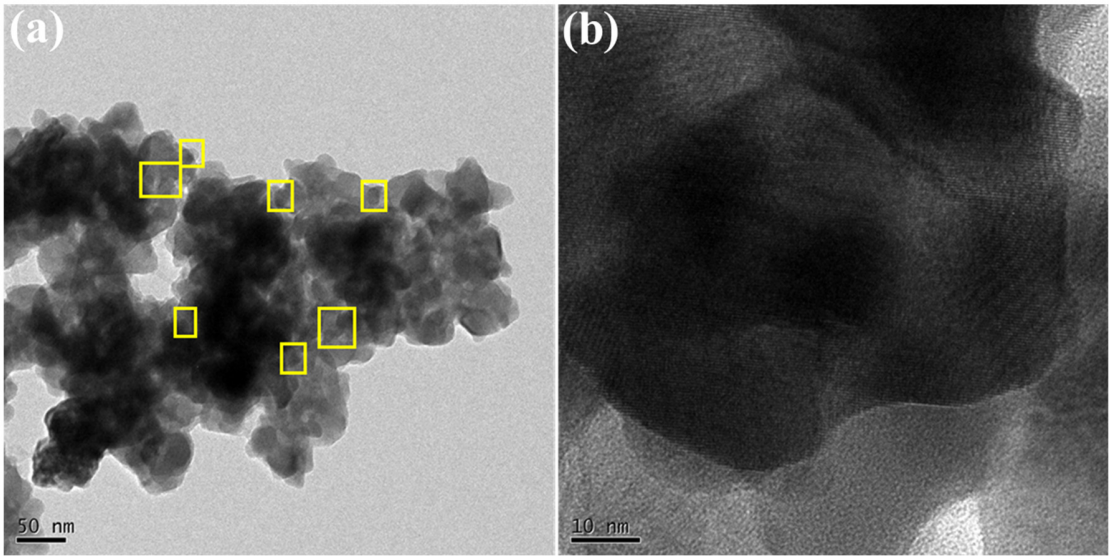


Figure S2: (a,b) HRTEM images of $PWNiO_{1.5}$ composite.

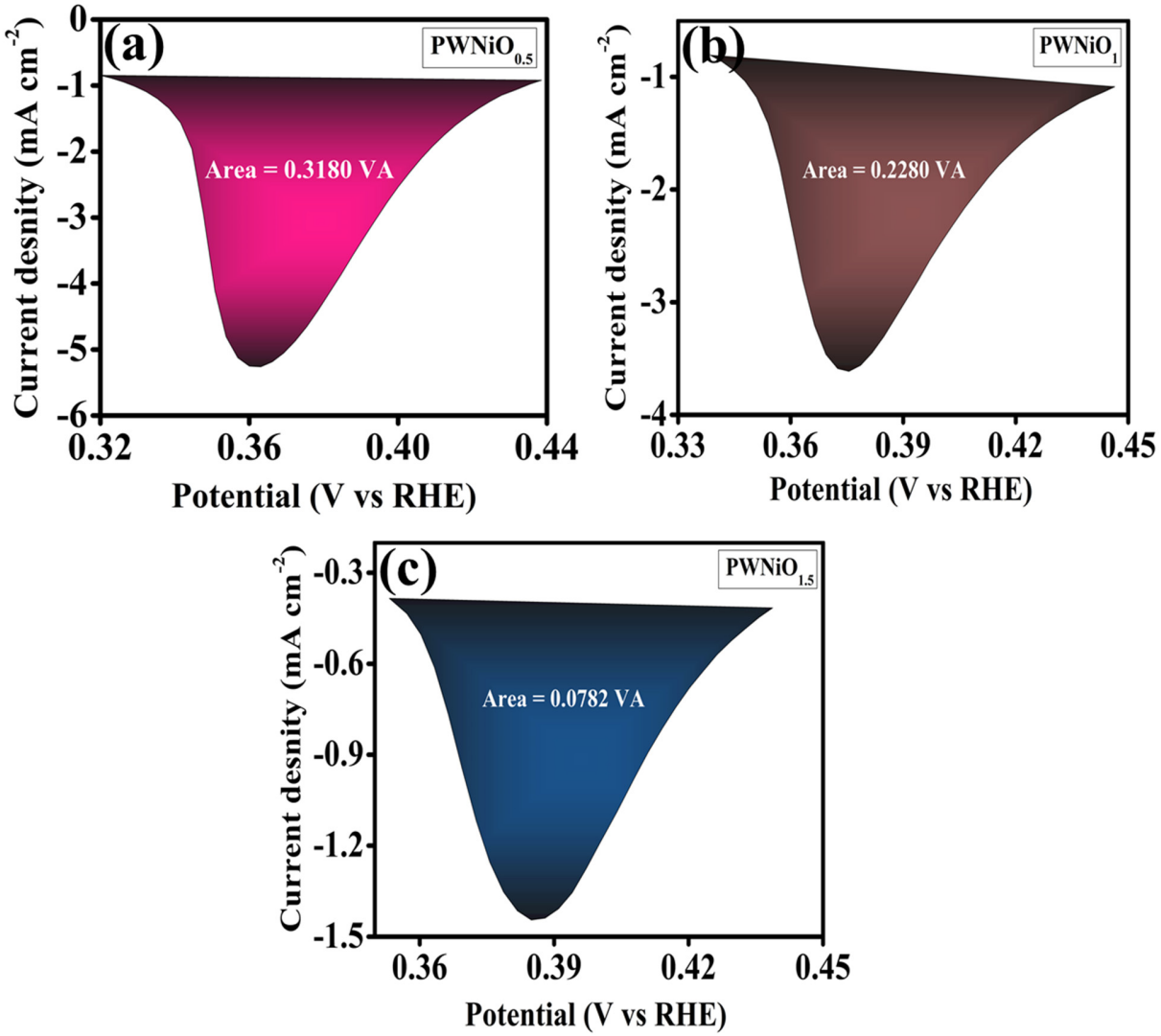


Figure S3: Reduction areas of (a) $PWNiO_{0.5}$ (b) $PWNiO_1$, and (c) $PWNiO_{1.5}$ electrocatalysts from their corresponding CV for OER TOF.

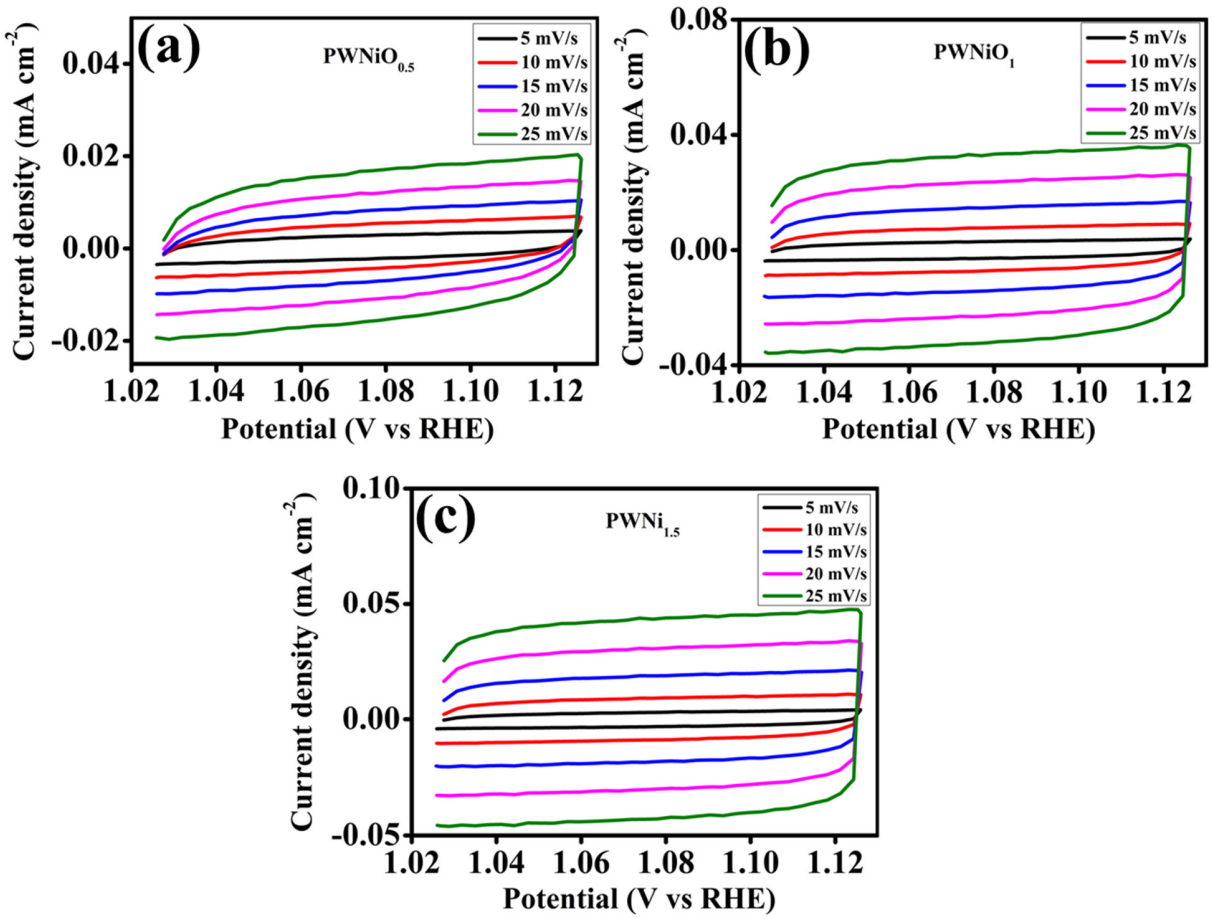


Figure S4: Cyclic voltammetry analysis of all the electrocatalysts at different scan rate.

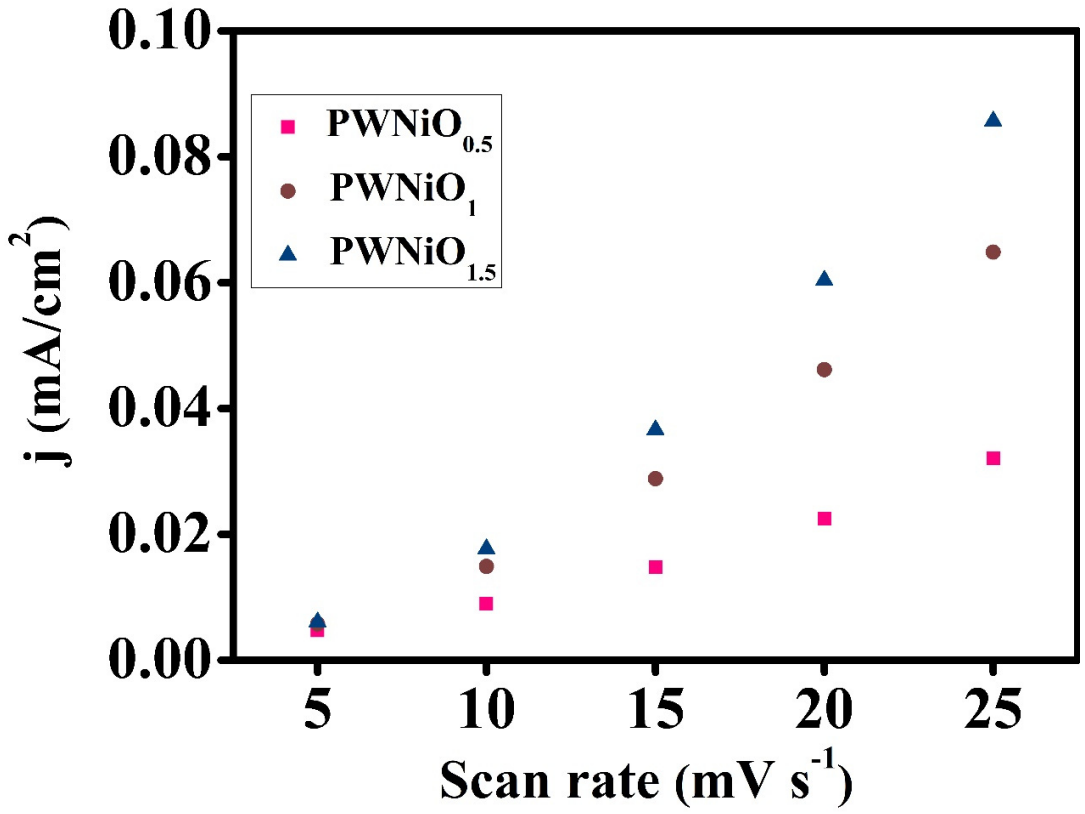


Figure S5: $2C_{dl}$ graph of all the electrocatalysts.

Table S1. Comparison of our ternary electro catalysts OER performance result with other reported electrocatalysts.

Electrocatalyst	**Over potential @10 mA cm^{-2} (mV)**	**Tafel Plot (mV dec^{-1})**	**Ref.**
NiO nanoparticles	373	139	[S1]
NiO-300	370	156	[S2]
Ag_2O–NiO	430	98	[S3]
NiO NPs/rGO	369	61	[S4]
carbon layer coated Ni_3S_2/MoS_2	350	79	[S5]
CeO_2/Ni/NC	390	123	[S6]
Co_3Fe_7@Fe_2N/rGO	371	114	[S7]
$Ni(OH)_2$/GO	380	89.1	[S8]
CoTp 3:1(Ni)	371	53.6	[S9]
Ni-MOF@CNT	370	138.2	[S10]
PO-Ni/Ni-N-CNFs	420	113.10	[S11]
$PWNiO_{1.5}$	349.7	71.2	[Present work]

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