Electronic Supplementary Information

Electrocatalytic Behavior of an Amide Functionalized Mn(II) Coordination Polymer on ORR, OER and HER

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Table S1. Crystallographic data for **Mn-CP**.

Table S2. Selected structural parameters [distances (Å) and angles (º)] in **Mn-CP**.

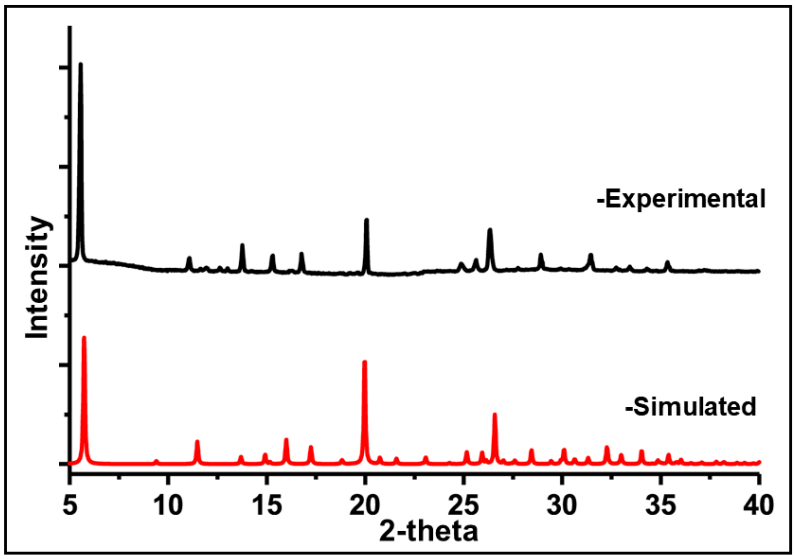


Figure S1. Simulated and experimental PXRD of **Mn-CP.**

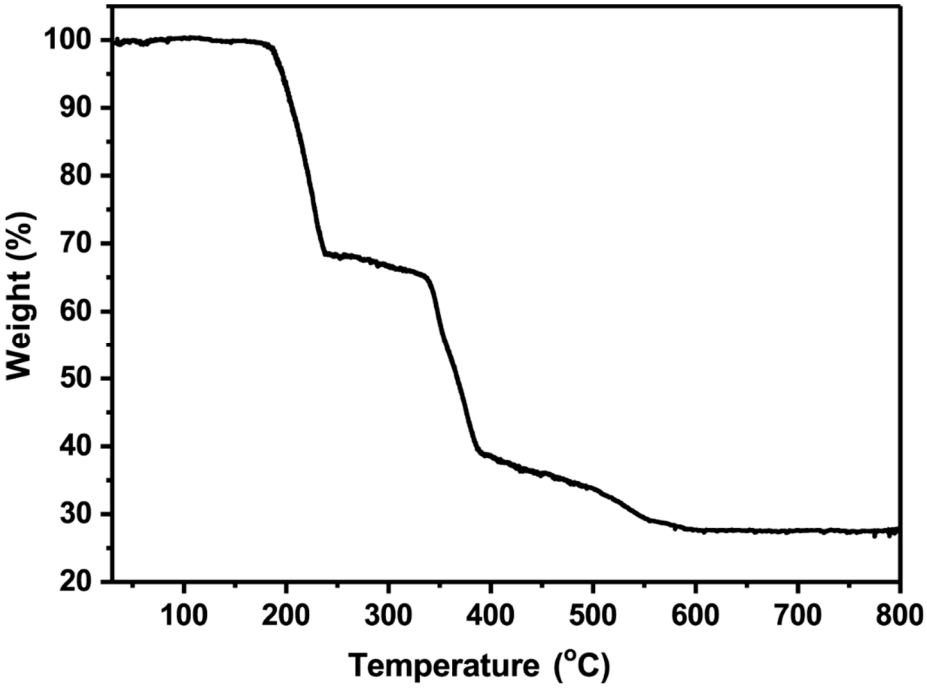


Figure S2. TGA of **Mn-CP**.

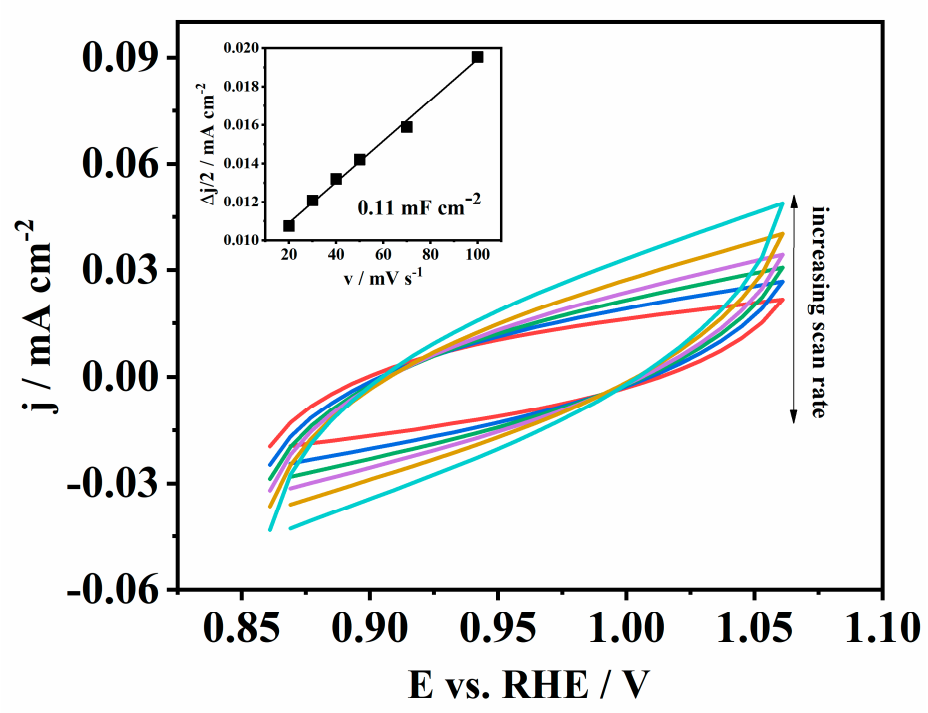


Figure S3. CVs in N_2-saturated 0.1 M KOH at different scan rates with the corresponding double-layer capacitance plots inset for **Mn-CP**.

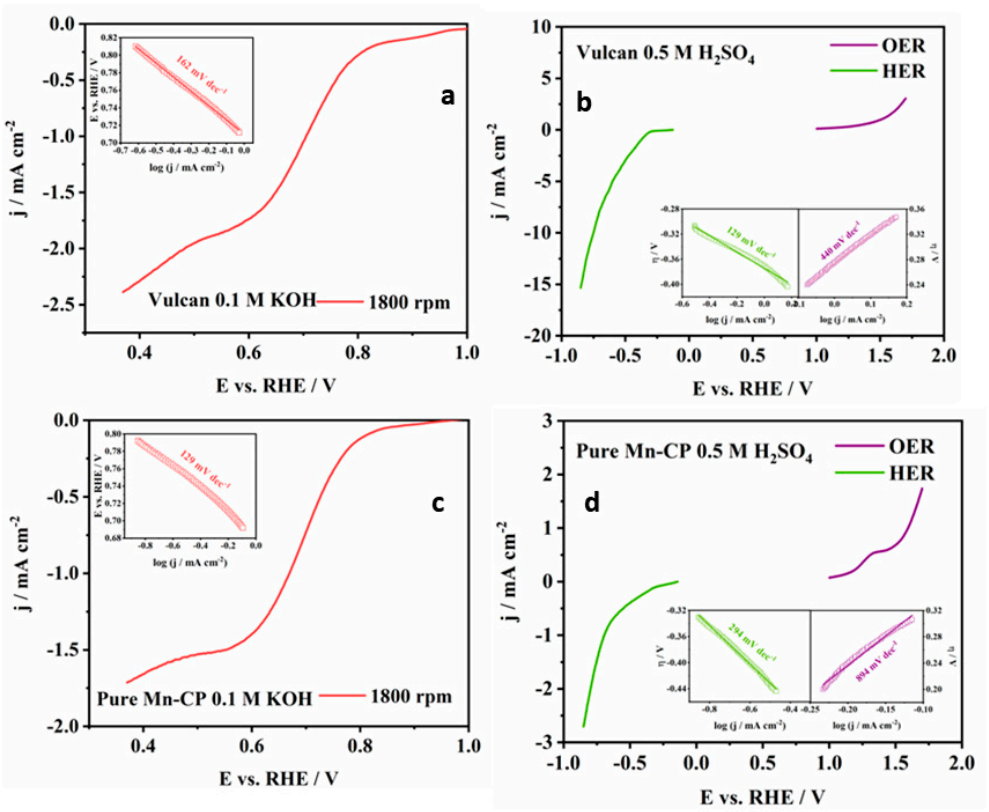
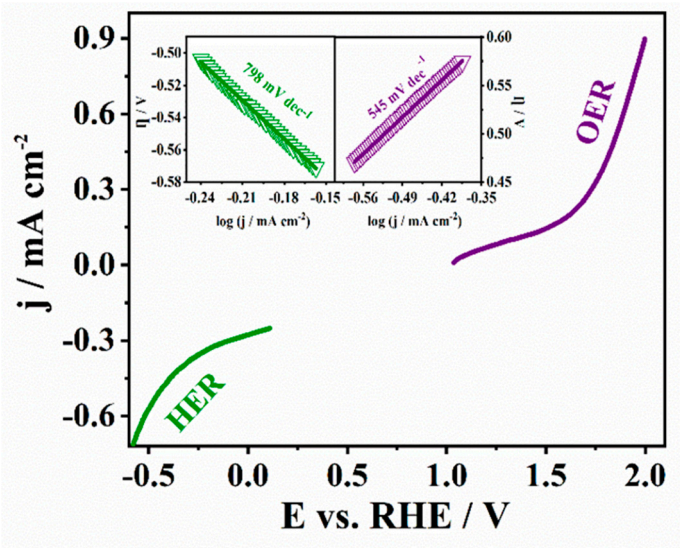


Figure S4. OER in 0.1 M KOH and HER and OER in 0.5 M H_2SO_4 polarization curves of pure Vulcan (a,b) and pure **Mn-CP** (c,d) with the corresponding Tafel plots in inset.



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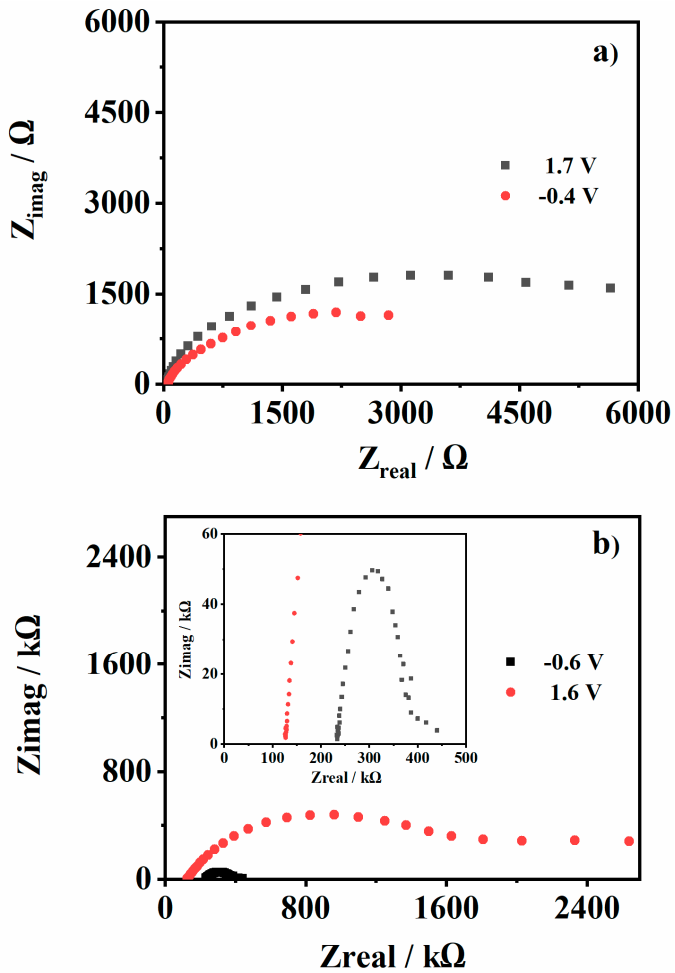

Figure S6. Nyquist plots of **Mn-CP** in (a) 0.1 M KOH, and (b) 0.5 M H_2SO_4.

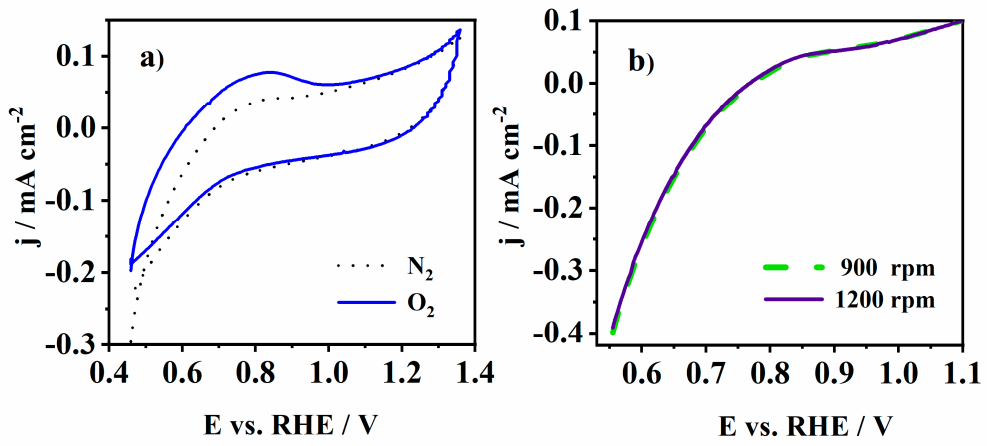

Figure S7. (a) CVs of **Mn-CP** in N_2- and O_2-saturated 0.5 M H_2SO_4 and (b) polarization curves at 900 and 1200 rpm in O_2-saturated 0.5 M H_2SO_4.

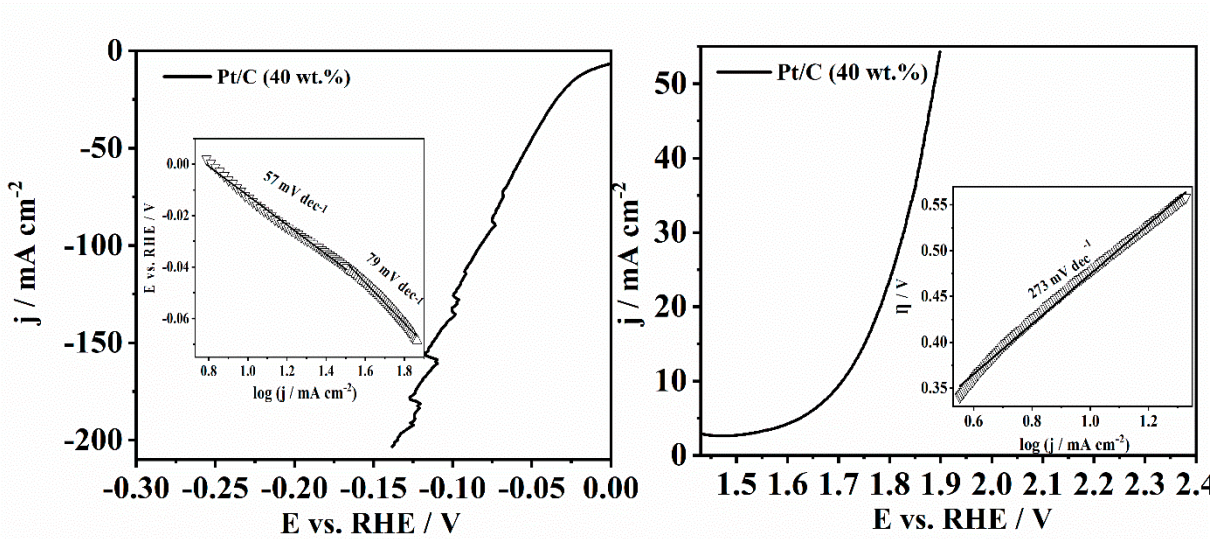

Figure S8. HER (a) and OER (b) polarization curves of commercial Pt/C (40 wt.% Pt) catalyst in 0.5 M H_2SO_4 with the corresponding Tafel plots in inset.

Table S1. Crystallographic data for **Mn-CP**.

	Mn-CP
Formula	$C_{14}H_{10}MnN_2O_5$
FW	341.18
Crystal system	Monoclinic
Space group	*P*21/*c*
a/Å	15.7858(7)
b/Å	11.8665(6)
c/Å	6.8661(3)
β/°	102.5610(10)
V/Å^3	1255.39(10)
Z	4
θ/°	3.15 – 25.40
μ (Mo Kα)/mm^{-1}	1.080
ρ_{calcd}/g cm^{-3}	1.805
F(000)	692
Index ranges	$-19<h<19$
	$-14<k<14$
	$-8<l<8$
Rfs. collected	9896
Rfs. unique/observed	2319/2310
R_{int}	0.0910
R_1/ wR_2 [I > 2σ(I)]	0.0183/0.0439
R_1/ wR_2 [for all F_o^2]	0.0184/0.0442
GOF on F^2	1.001

Table S2. Selected structural parameters [distances (Å) and angles (º)] in **Mn-CP**.

In the L– ligand	
$C{=}O_{amide}$	1.2223(18)
$C{-}N_{amide}$	1.4045(18)
∠between the l.s. planes of the aromatic rings	37.32
Around the metal centre	
$Mn{-}N_{pyridyl}$	2.2663(12)
$Mn{-}O_{carboxylate}$	2.1495(10) 2.1510(12) 2.1578(13) 2.2141(9) 2.2571(13)
$\angle N_{pyridyl}{-}Mn{-}O_{caboxylate}$ (*trans*)	168.88(4)
$\angle O_{formate}{-}Mn{-}O_{formate}$ (*trans*)	171.65(4)
$\angle O_{formate}{-}Mn{-}O_{caboxylate}$ (*trans*)	164.16(4)