Supplementary Materials

Carbonized Polydopamine-Based Nanocomposites: The Effect of Transition Metals on the Oxygen Electrocatalytic Activity

Table S1. Chemical analysis of M-NC (M = Ti, Mn, Fe, Co, Ni, Cu, Zn and PDA) (wt%)

Catalyst	**C**	**N**	**M**
Ti-NC	54	2.7	18
Mn-NC	46	3.4	35
Fe-NC	63	1.7	46
Co-NC	57	2.0	42
Ni-NC	63	1.6	33
Cu-NC	52	7.2	39
Zn-NC	85	4.4	1
PDA-NC	79	6.2	-

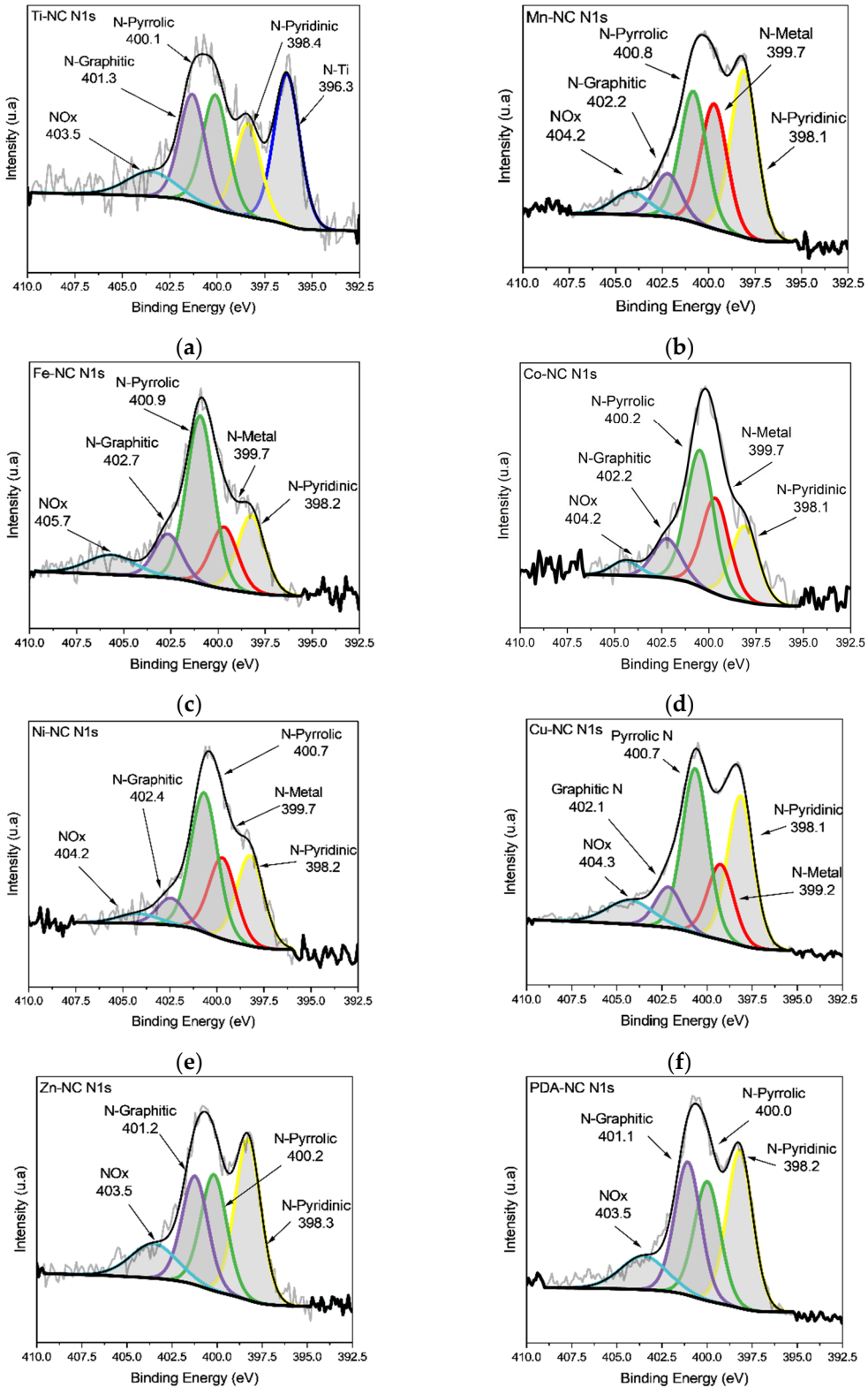

Figure S1. N 1s XPS spectra of (**a**) Ti-NC; (**b**) Mn-NC; (**c**) Fe-NC; (**d**) Co-NC; (**e**) Ni-NC; (**f**) Cu-NC; (**g**) Zn-NC; (**h**) PDA-NC

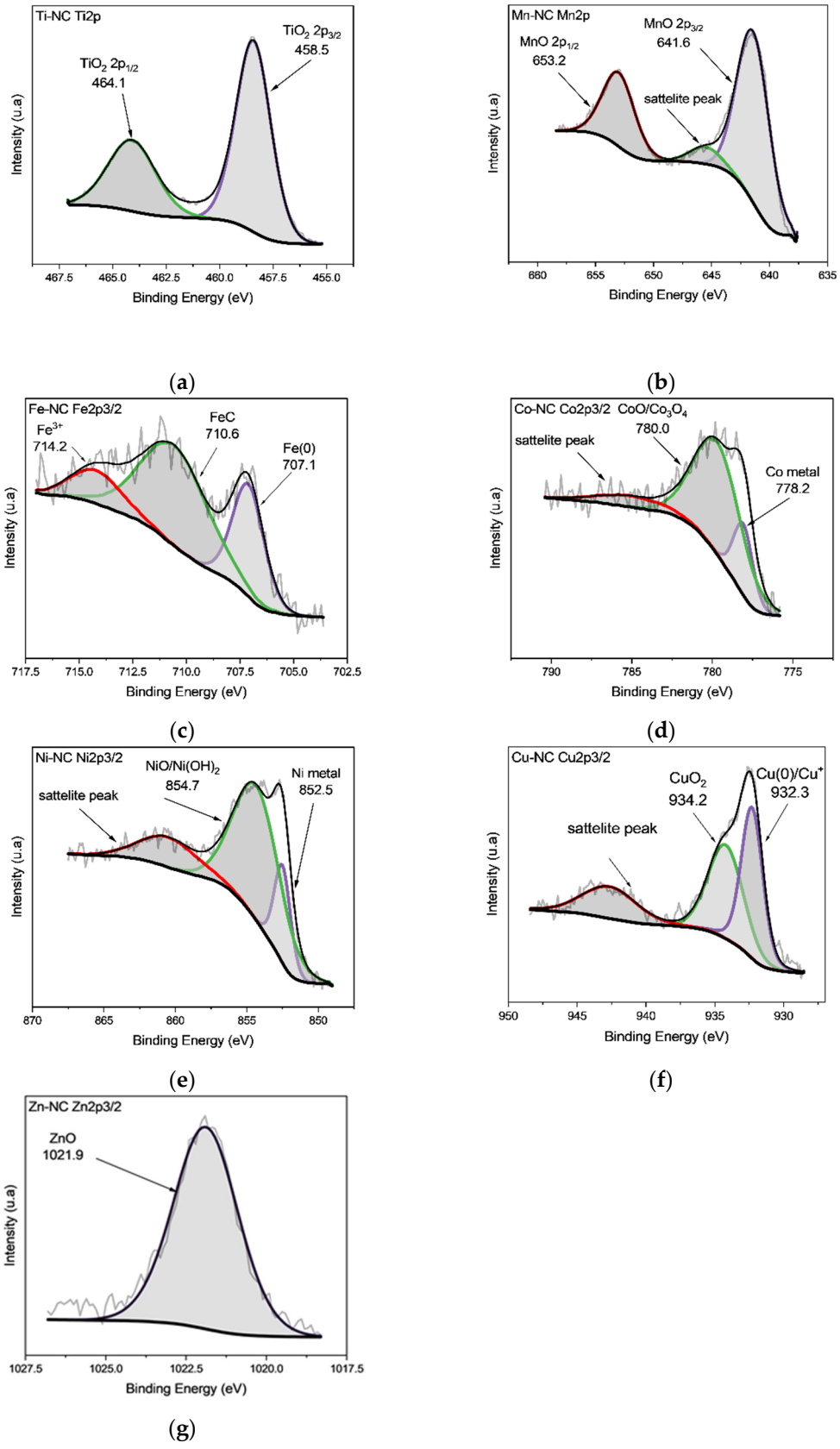

Figure S2. (**a**) Ti2p XPS spectra of Ti-NC; (**b**) Mn2p XPS spectra of Mn-NC; (**c**) Fe2p3/2 XPS spectra of Fe-NC; (**d**) Co2p3/2 XPS spectra of Co-NC; (**e**) Ni2p3/2 XPS spectra of Ni-NC; (**f**) Cu2p3/2 XPS spectra of Cu-NC; (**g**) Zn2p3/2 XPS spectra of Zn-NC

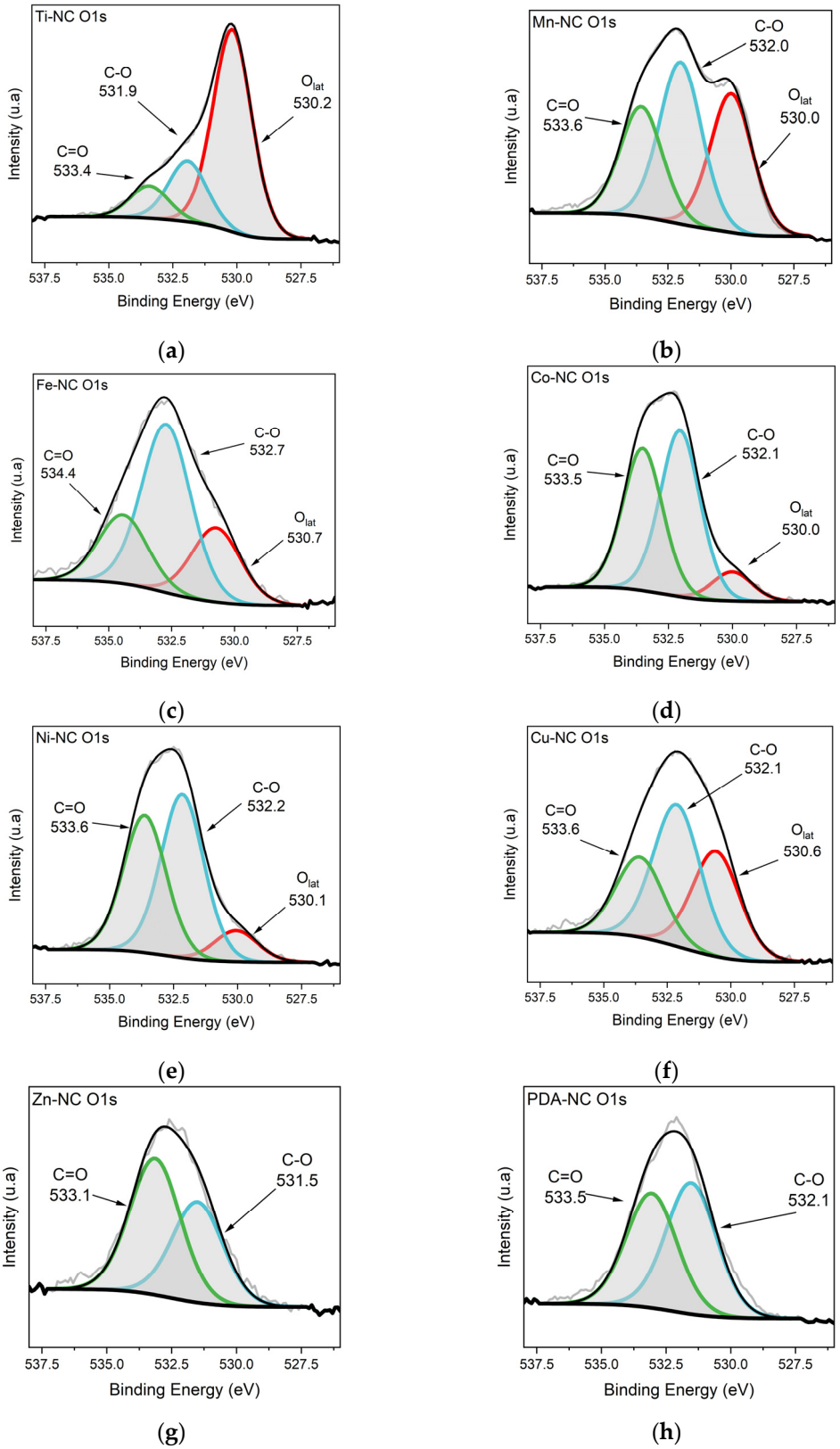

Figure S3. O 1s XPS spectra of (**a**) Ti-NC; (**b**) Mn-NC; (**c**) Fe-NC; (**d**) Co-NC; (**e**) Ni-NC; (**f**) Cu-NC; (**g**) Zn-NC; (**h**) PDA-NC

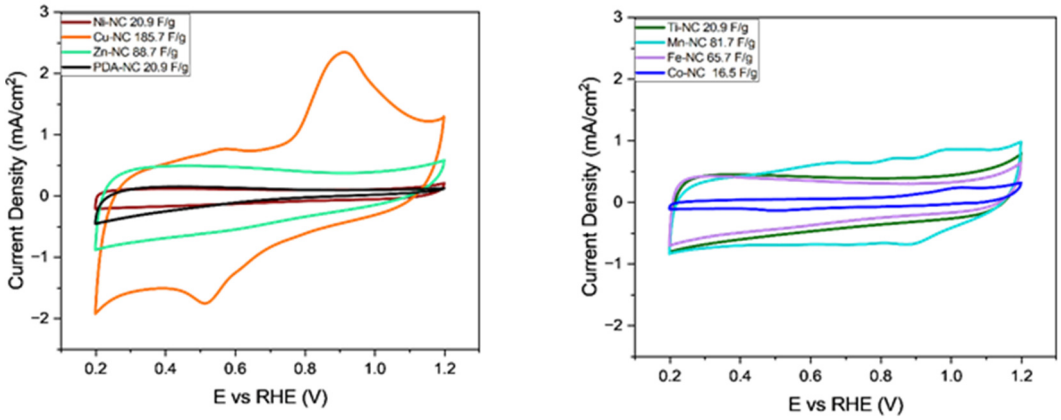

Figure S4. CV profile of the as-synthesized electrocatalysts measured in 0.1 M NaOH at a scan rate of 20 mV s^{-1}