

**Emulsion Polymerization for Fabrication of Poly (o-phenylenediamine) @
Multi-walled Carbon Nanotube nanocomposite: Characterization and Its
Application to the Corrosion Protection of 316L SS**

Ehsan Nazarzadeh Zare^a, Moslem Mansour Lakouraj^{a*}, Shahram Ghasemy^b, Elham Moosavi^a

^a Department of Organic-Polymer Chemistry, Faculty of Chemistry, University of Mazandaran,
Babolsar, Iran

^b Department of Nanotechnology, Faculty of Chemistry, University of Mazandaran, Babolsar,
Iran

Email: lakouraj@umz.ac.ir; Tel-fax: +981125342350; postal code: 47416

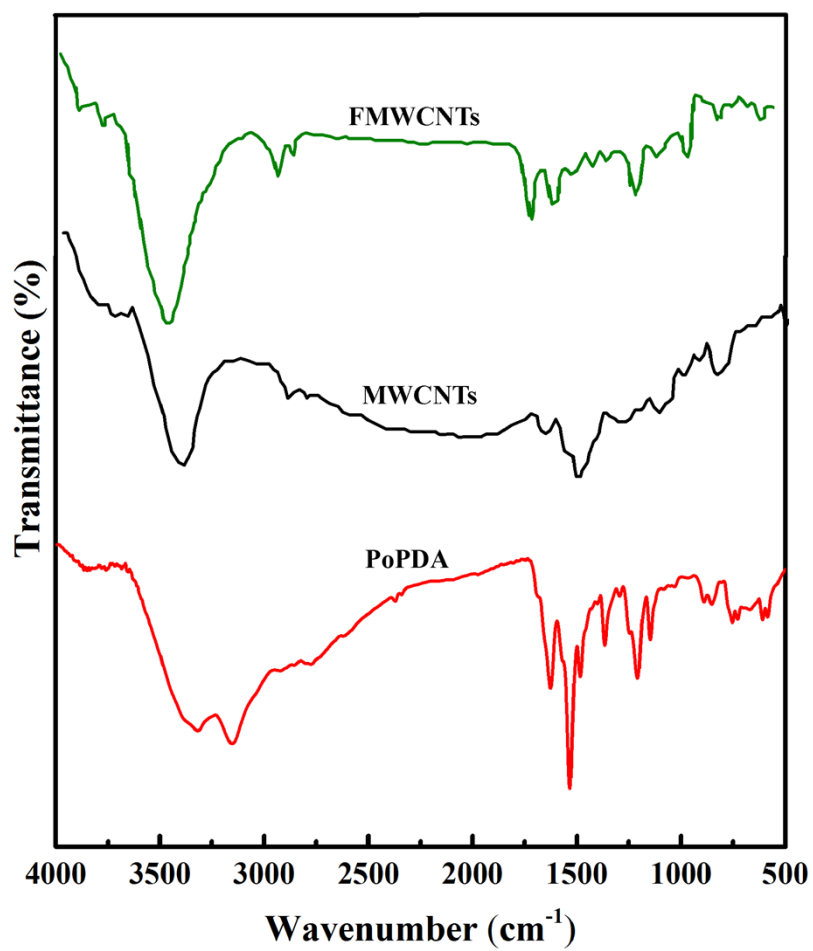


Fig. S1. FT-IR of PoPDA, MWCNTs and FMWCNTs

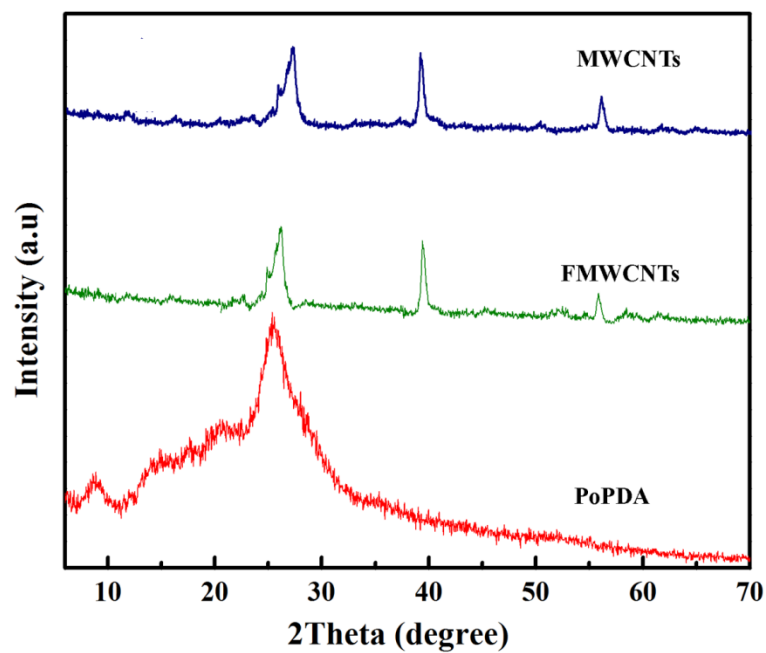


Fig. S2. XRD of PoPDA, MWCNTs and FMWCNTs

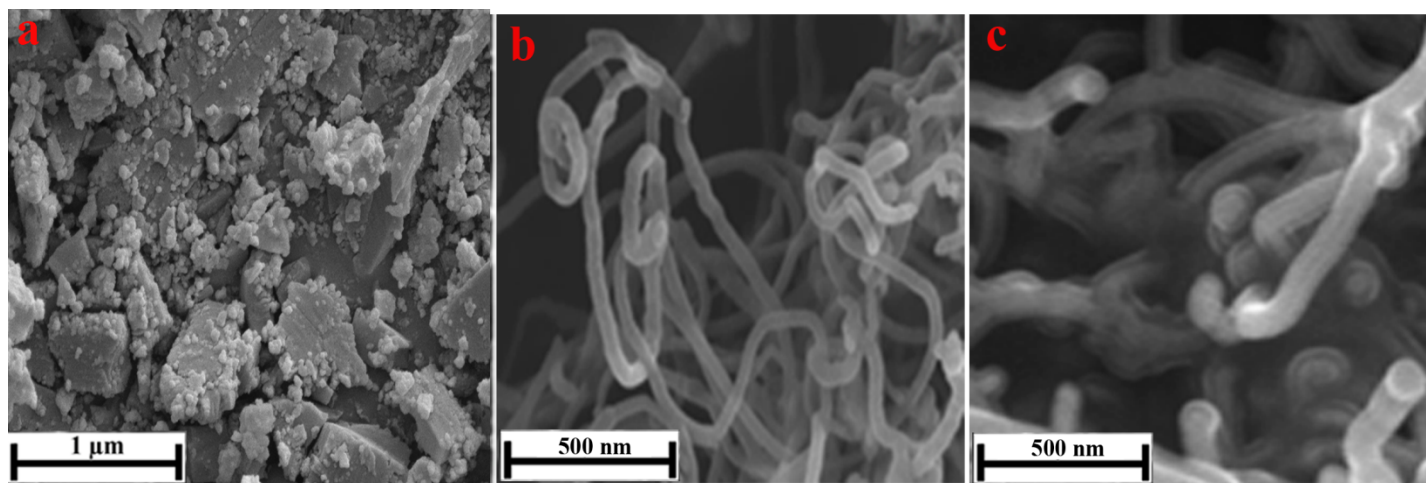


Fig. S3. SEM of PoPDA (a), MWCNTs (b) and FMWCNTs (c)

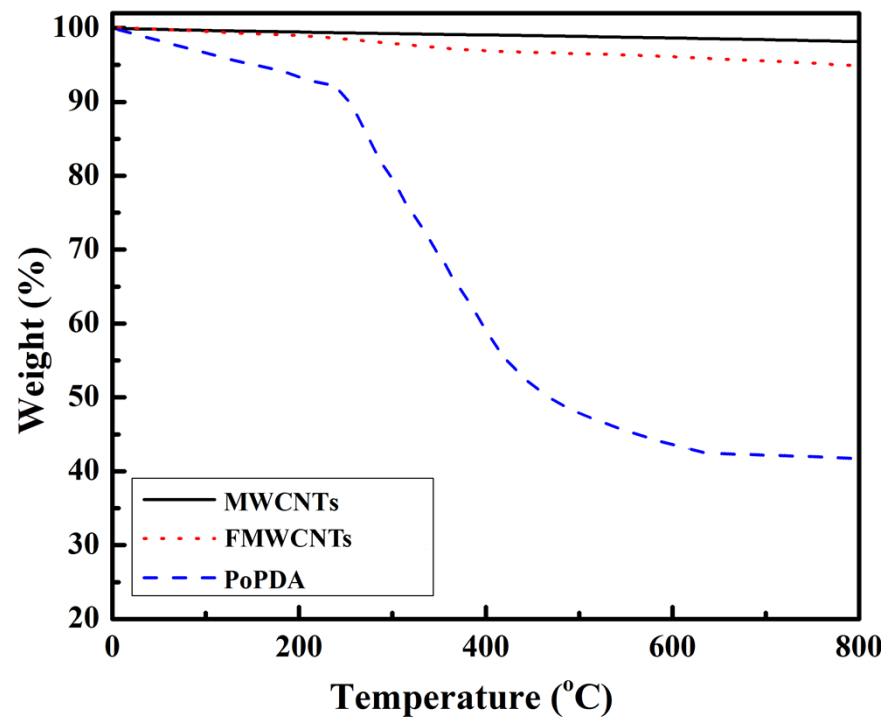


Fig. S4. TGA of PoPDA, MWCNTs and FMWCNTs

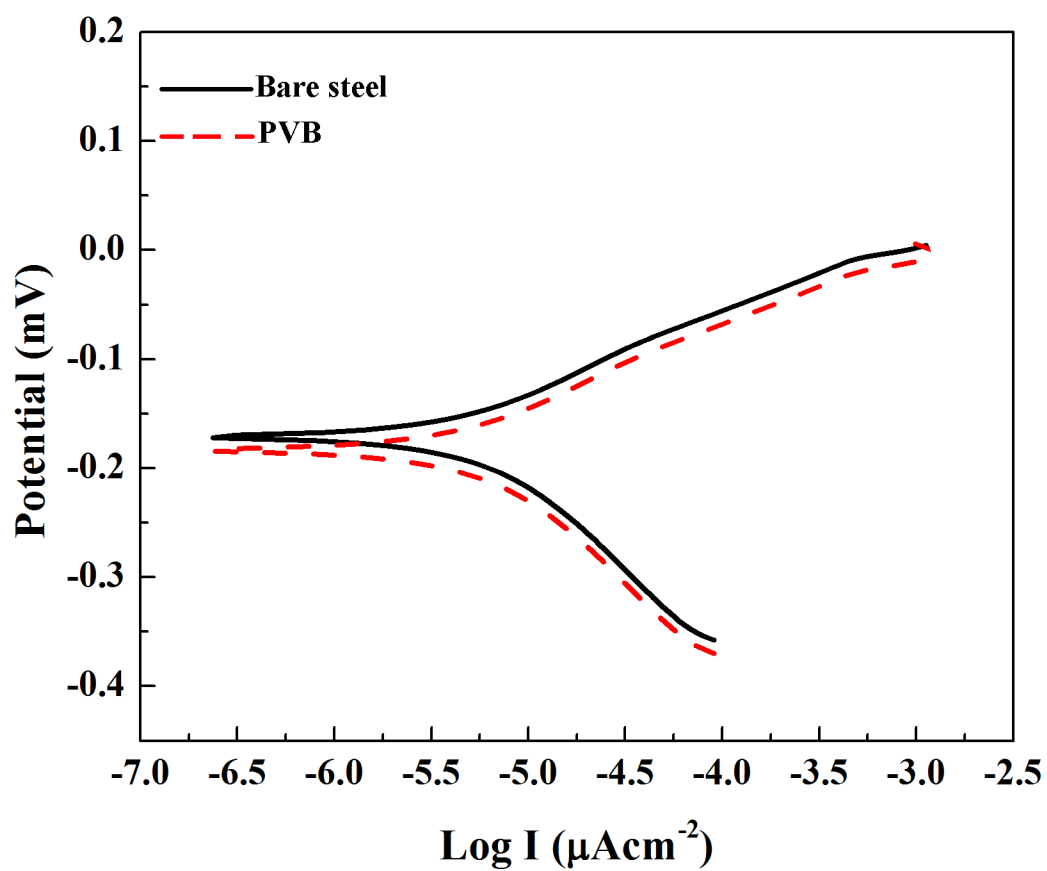


Fig. S5. Tafel plots of uncoated steel and coated by PVB in 3.5 wt % NaCl solution

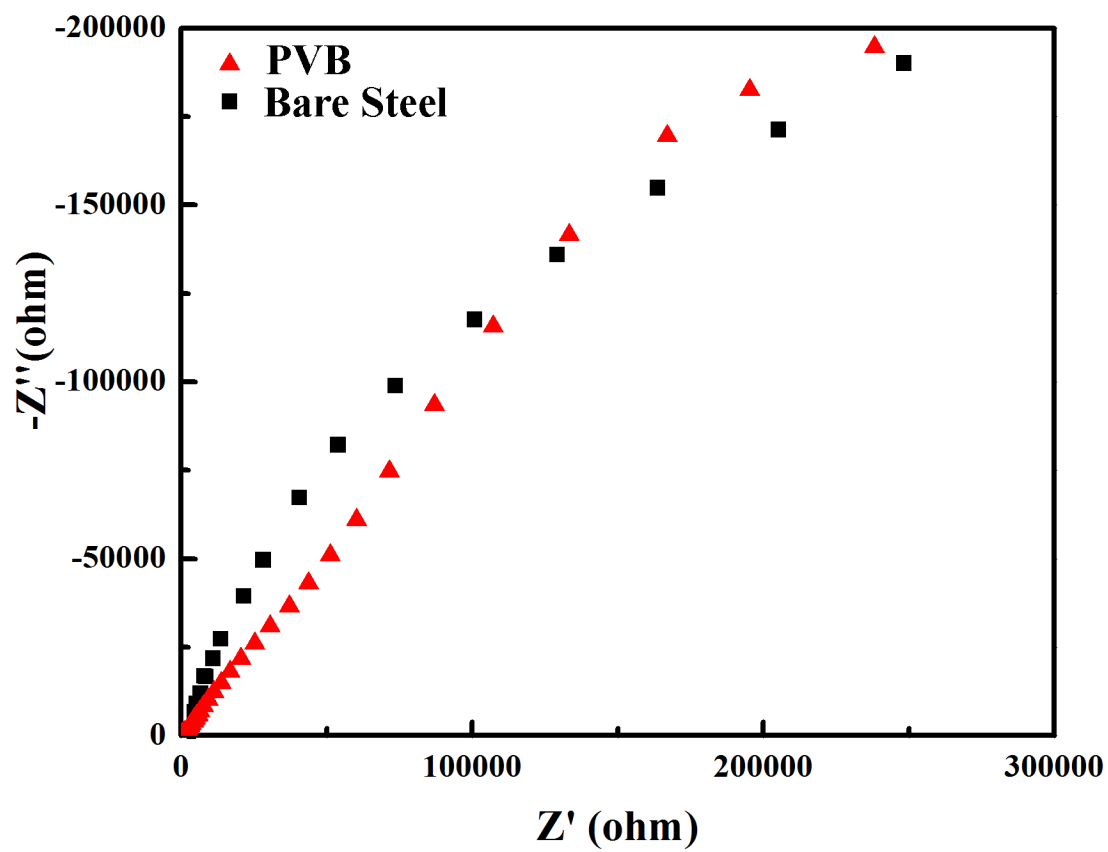


Fig. S6. The Nyquist plots of uncoated steel and coated by PVB in 3.5 wt % NaCl solution

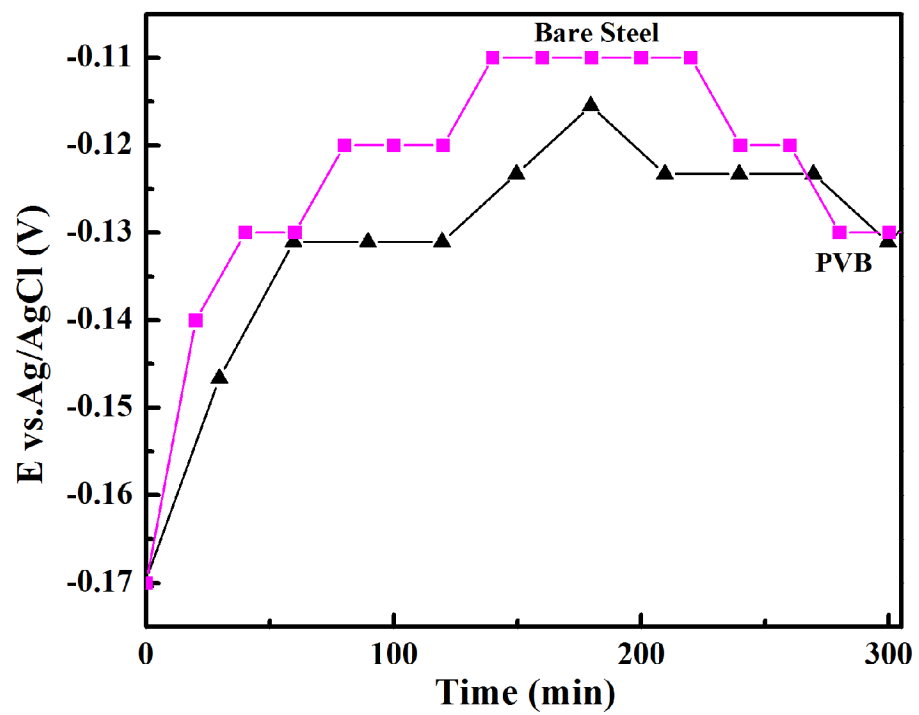


Fig. S7. Open circuit potential measurements for uncoated steel and coated by PVB in 3.5 wt % NaCl solution