

Supporting information

Adsorption and corrosion inhibition properties of N-{*n*-[1-*R*-5-(quinoxalin-6-yl)-4,5-dihdropyrazol-3-yl]phenyl} methanesulfonamides on mild steel in 1 M HCl: Experimental and theoretical studies

Lukman O. Olasunkanmi,^{a,b,c} Ime B. Obot,^d Eno E. Ebenso^{a,b*}

^aDepartment of Chemistry, School of Mathematics and Physical Sciences, Faculty of Agriculture, Science and Technology, North-West University (Mafikeng Campus) Private Bag X2046, Mmabatho 2735, South Africa.

^bMaterial Science Innovation and Modelling (MaSIM) Research Focus Area, Faculty of Agriculture, Science and Technology, North-West University (Mafikeng Campus) Private Bag X2046, Mmabatho 2735, South Africa.

^cDepartment of Chemistry, Faculty of Science, Obafemi Awolowo University, Ile-Ife, 220005, Nigeria.

^dCentre of Research Excellence in Corrosion, Research Institute, King Fahd University of Petroleum and Minerals, Dhahran 31261, Kingdom of Saudi Arabia

*Corresponding Author; E-mail: Eno.Ebenso@nwu.ac.za; Tel: +27 183892050/2051;
Fax: +27183892052

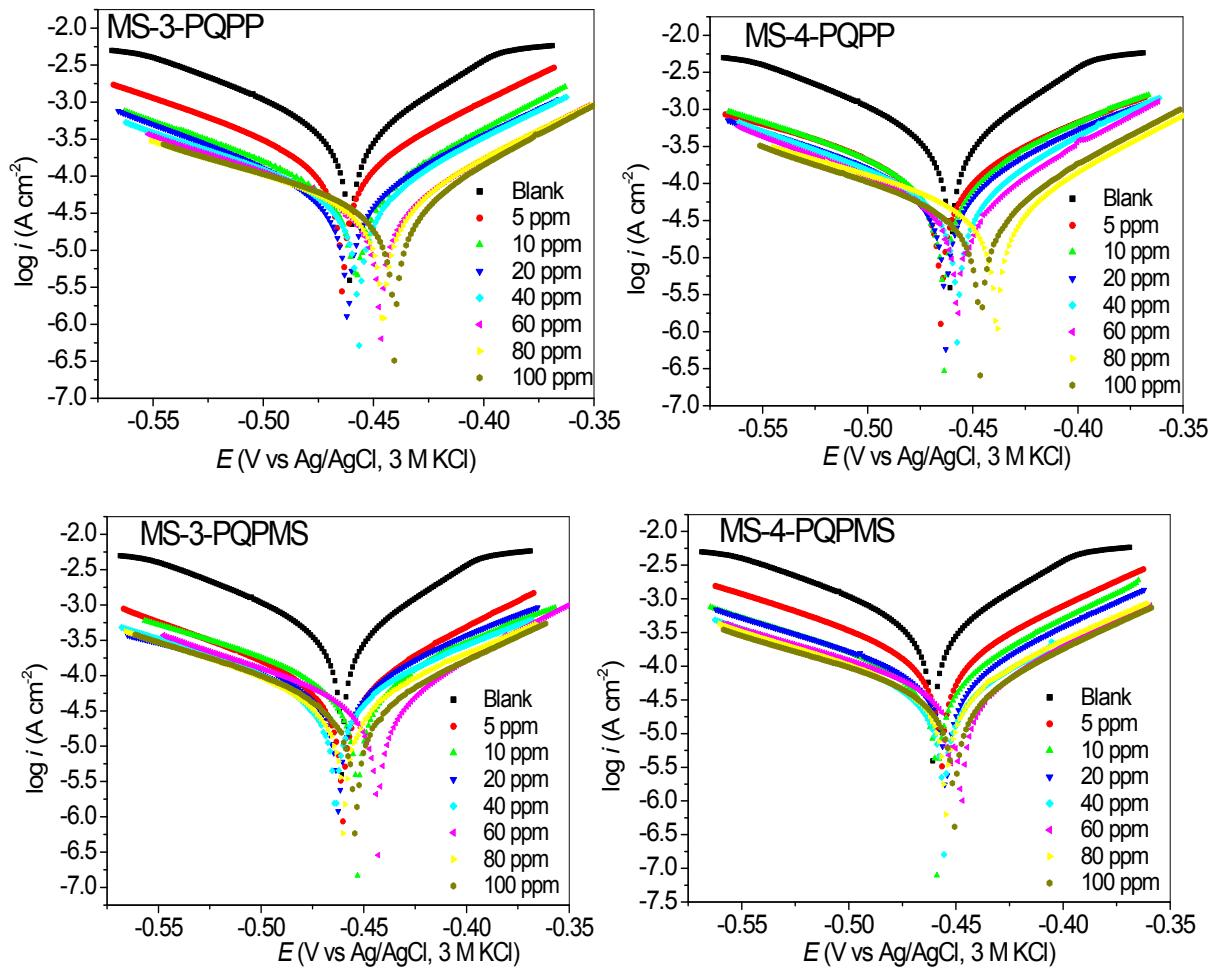


Figure S1. Tafel plots for mild steel in 1 M HCl without and with various concentrations of MS-3-PQPP, MS-4-PQPP, MS-3-PQPMS, and MS-4-PQPMS

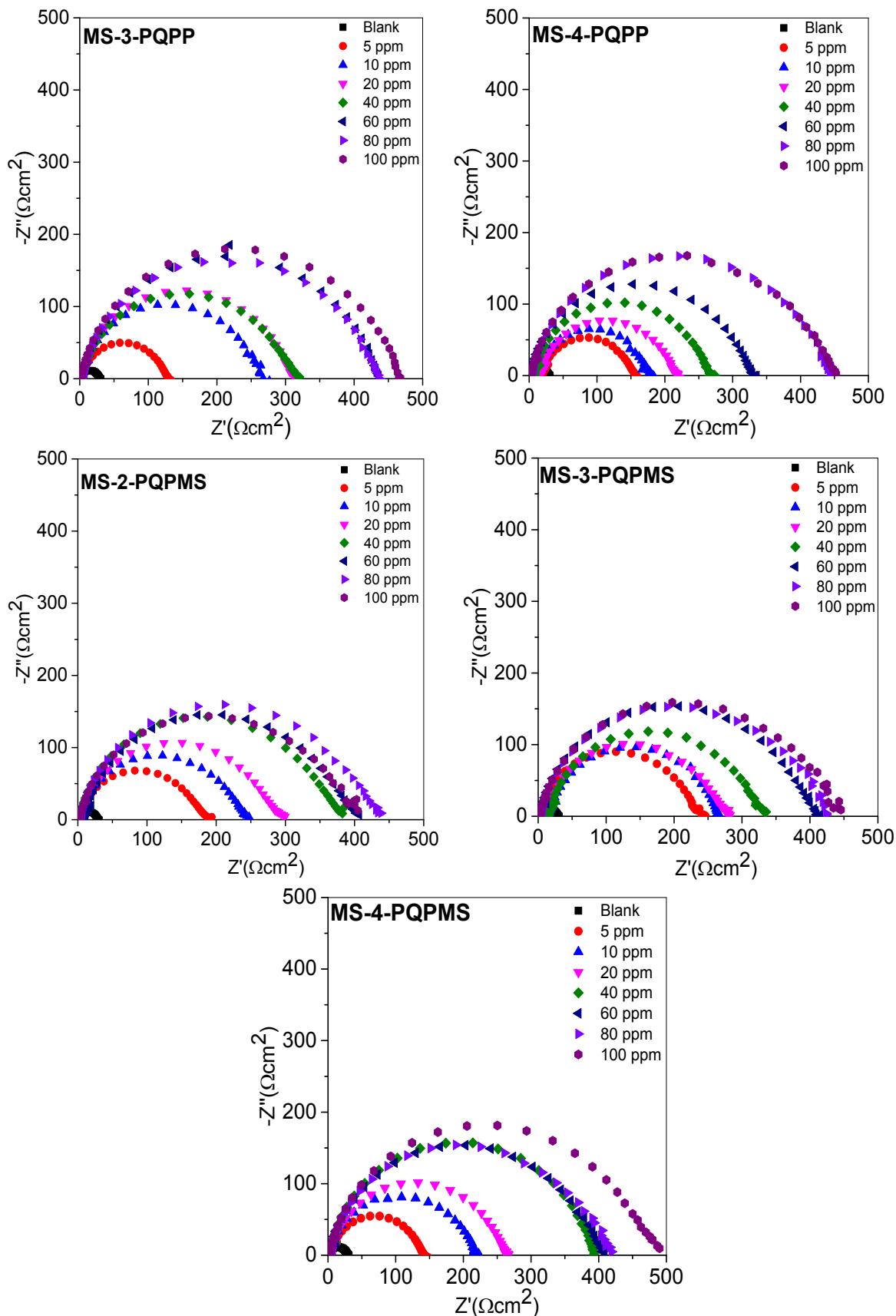
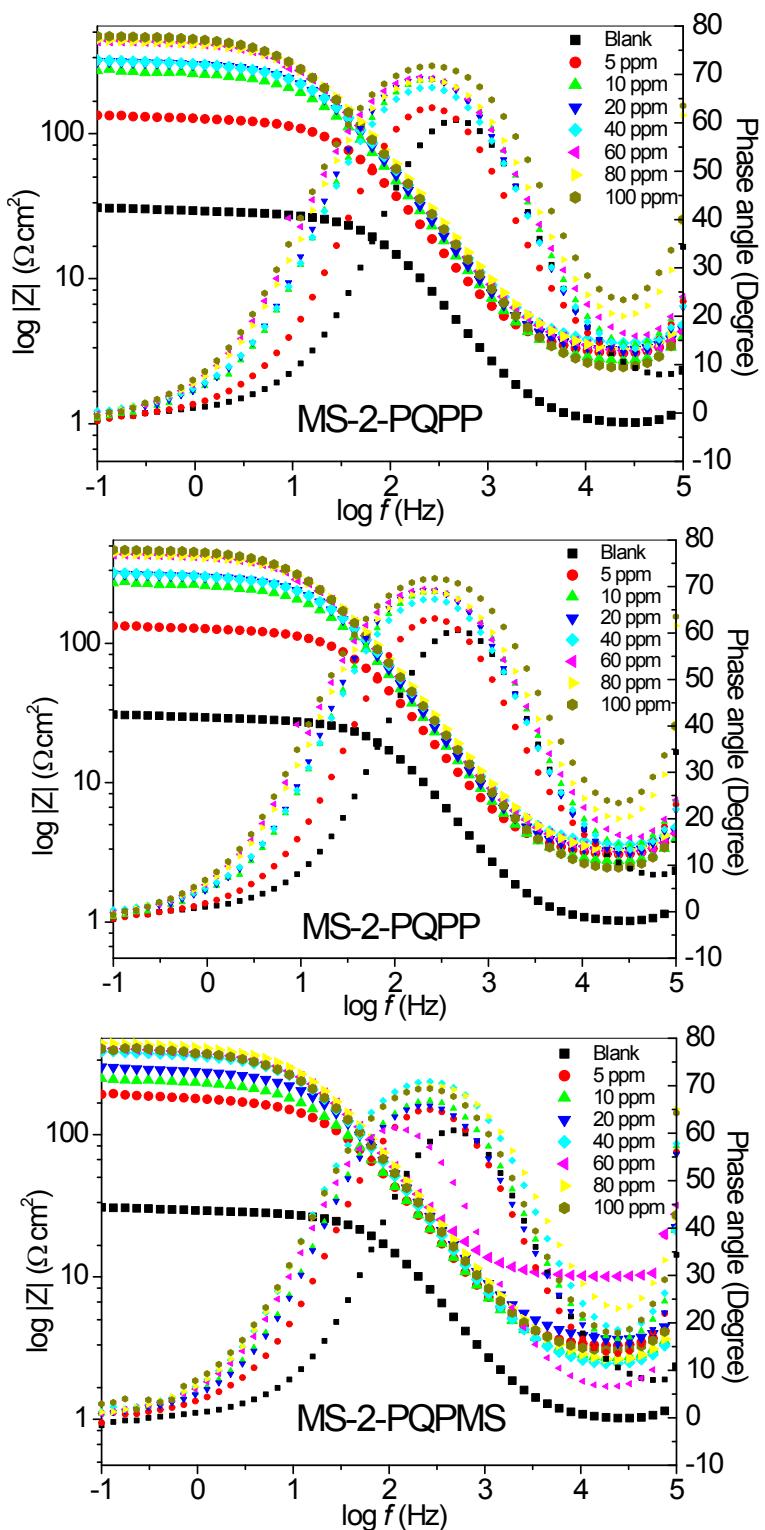


Figure S2. Nyquist plots for mild steel in 1 M HCl without and with various concentrations of MS-3-PQPP, MS-4-PQPP, MS-2-PQPMS, MS-3-PQPMS, and MS-4-PQPMS.



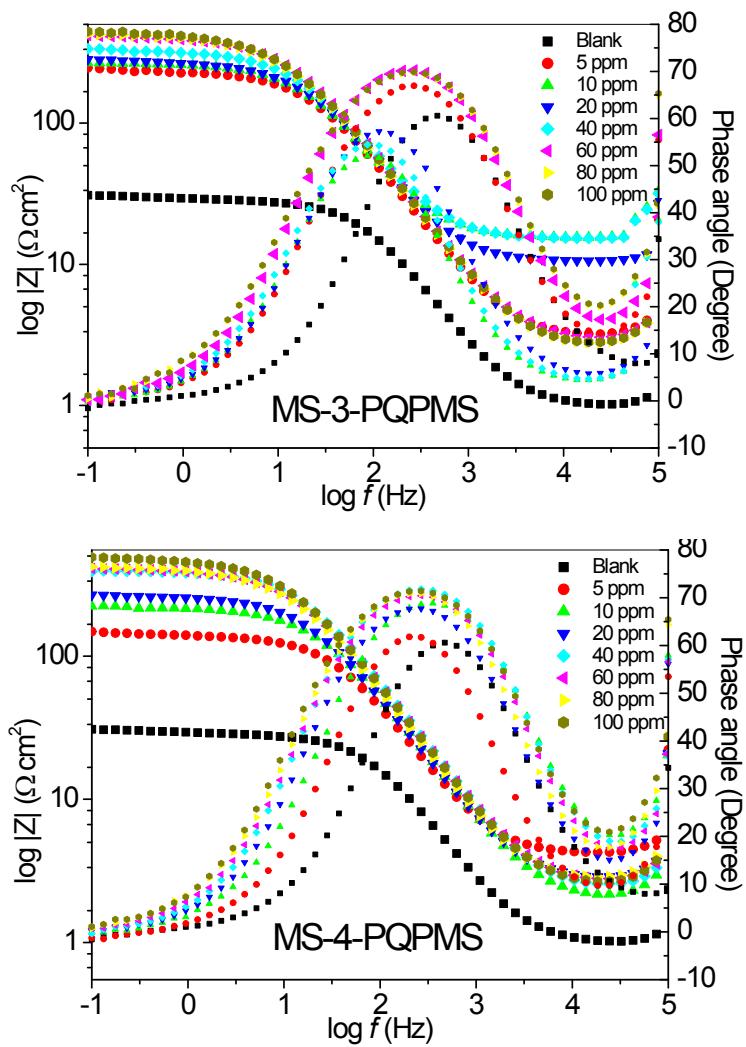


Figure S3. Bode plots for mild steel in 1 M HCl without and with various concentrations of MS-3-PQPP, MS-4-PQPP, MS-2-PQPMS, MS-3-PQPMS, and MS-4-PQPMS.

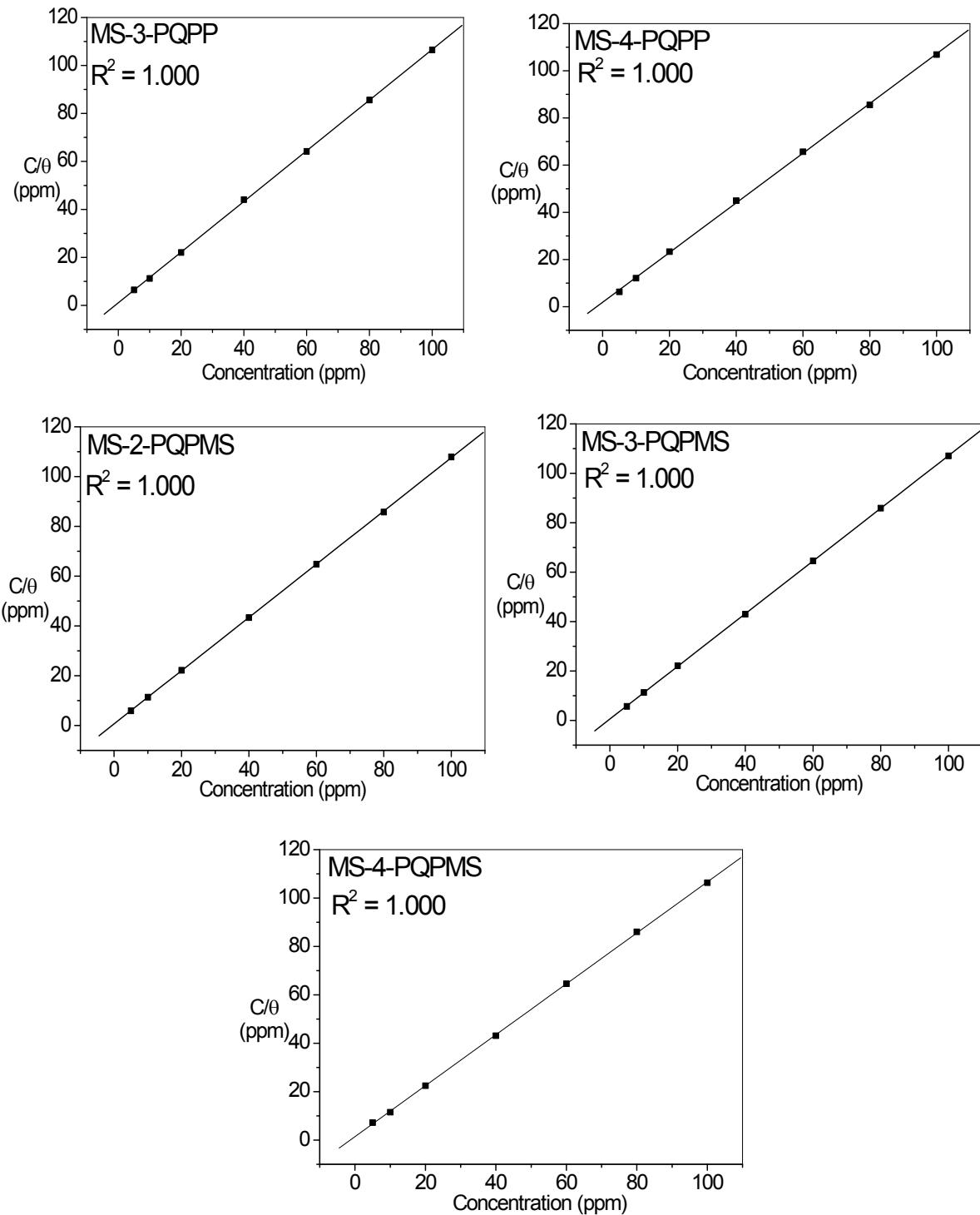


Figure S4. Langmuir adsorption isotherms for MS-3-PQPP, MS-4-PQPP, MS-2-PQPMS, MS-3-PQPMS, and MS-4-PQPMS on mild steel in 1 M HCl. (Experimental data were taken from the EIS measurements).