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Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	**Ms_IRJPAC_27881**
Title of the Manuscript:	**Corrosion Inhibition of Mild Steel in Sulphuric Acid Environment Using Millet Starch and Potassium iodide.**
Type of the Article	**Original Research Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments		
Minor REVISION comments	11 H2SO4 solution was investigated using gravimetric weight loss measurement, potentiodynamic 12 polarization and theoretical chemical quantum computations. 12 polarization and theoretical chemical quantum computations. The results obtained show that millet 13 starch effectively reduced the corrosion of mild steel in 0.5 M H2SO4 solution with an inhibition 14 efficiency of up to 87.14% and 94.03% in combination with potassium iodide. of the molecule-metal interaction via molecular dynamic simulation. Scanning electron microscop 54 y 55 (SEM) was utilized to give evidence of protection effect of millet starch on the mild surface. 147 damage effect showed more manifestation more in blank solution. In addition, the reduction in 141 **4.1. Weight Loss Measurements, Corrosion Rates and Inhibition Efficiency** Hence, Langmuir 212 adsorption isotherm showed the best fit and was obtained according to the following equations: C is the 216 inhibitor concentration and g is the adsorbate interaction parameter. Experimental data estimated 217 from weight loss and polarization results were used for plots of C/θ against C presented in parts a and b of Figure 2.	

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	The values of Concentration at the x-axis of Figs. 2a – 2b are measured in what unit? The free energy of adsorption (ΔGads) and equilibrium constant (Kads) in an adsorption-desorption 227 process are related by the expression as follows: 228 229 ΔG<=> = −RTIn _ K<=> # 55.5_ 230 (6) 231 232 where R is the universal gas constant and T is the absolute temperature. The values of calculated 233 free energy of adsorption were found to be −15.422KJ/mol and −16.522KJ/mol for MS and MS+KI 234 respectively. The negative value of free energy of adsorption is an indication that millet starch is 235 spontaneously adsorbed onto mild steel surface whereas the value of ΔGads being lower than – 236 20KJ/mol means that millet starch is physically adsorbed onto mild steel surface [24]. Figure 3: Variation inhibition efficiency versus temperature for mild 329 steel in 0.5 M H2SO4 in the presence different concentrations of MS. does 342 not change with variation in temperature. The plots log β against 1/2.303RT for the corrosion process Provide a Table of summary for the results obtained from the computational analysis.	
Optional/General comments	The present investigation well-suits for the current trends in corrosion science. The methodology is suitably chosen for the objective of the work. The interpretation of the results is also leading to the proposed conclusions. There are some grammatical/typographical errors in the work that needs to be given due attention.	

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