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Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	Ms_IRJPAC_26179
Title of the Manuscript:	Kinetics of the Sorption Of Copper (II) Phthalocyanine Tetrasulfonic Sodium Acid (Cupc) Dye Onto Titanium Dioxide
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.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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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	In this study titanium dioxide were used for the uptake and adsorption kinetics of copper (II) phthalocyanine tetrasulfonic sodium acid (CuPc). The authors concluded that TiO ₂ powder can be used as an alternative to activated carbon for the clean-up of CuPc from effluents. The data were evaluated using first order and second order kinetics, and the sorption studies were found to be second order kinetics. It was found that the equilibrium data were fitted very well to Freundlich isotherm.	This is exactly the main focus of the research
Minor REVISION comments	The authors should be used the term of adsorption for the whole manuscript instead of absorption . e.g. page 1 line 13. The authors should also mention the type of adsorption according to Gile's Isotherm e.g. L or S type?	In the manuscript the word absorption had been replaced with the word adsorption were necessary. We did not use Giles Isotherm due to the fact that Giles classified the isotherms into constant partition (C), high affinity (H), Langmuir (L) and sigmoidal (S) types. Isotherm in our study is C type in which the availability of adsorption sites on the Titanium dioxide remains constant at all concentrations up to saturation. It is characterized by the constant partition of contaminant between solution and substrate up to maximum possible adsorption. The linearity of curves indicate that the number of adsorption sites remains constant and as adsorption progresses more and more sites are created; which is the case when strong attraction of solute instead of solvent exists for adsorbent. The solute then break enters the substrate bonds



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		thereby interfering with solvent penetration. The adsorptions of CuPc on the Titanium dioxide was quantified by using Langmuir (1918) and Freundlich (1906) adsorption isotherms. Langmuir adsorption isotherm is based on the assumption that the maximum adsorption corresponds to a saturated monolayer of solute molecules on the adsorbent surface, having no interaction with molecules adsorbed from lateral sides. (Muhammad Zahoor and Farhat Ali Khan, 2014)
<u>Optional/General</u> comments		