



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2013_BJAST_3695
Title of the Manuscript:	Kinetic, Isothermal, and Thermodynamic Studies of the Biosorption of Methylene Blue from Synthetic Wastewater using Cow Hooves

PART 2:

FINAL EVALUATOR’S comments on revised paper (if any)	Authors’ response to final evaluator’s comments
I read the revised form of the manuscript BJAST_3695 „Kinetic, Isothermal, and Thermodynamic Studies of the Biosorption of Methylene Blue from Synthetic Wastewater using Cow Hooves” and I send you below my observations. 1. The authors respected some extent indications made (only some of them were taken into account). Perhaps they think that reviewers read and make comments just because they have too much free time !!! 2. After careful review, with minor changes, the manuscript can be published. 3. It is necessary to carefully review the terminology "adsorption" - "sorption" and "adsorbent" – “sorbernt” because there are flaws (i.e. pg.9, line 224; pg.10, line 249; pg 13, lines 285, 294; pg. 14, line 320; pg. 15, line 353) 4. Abstract - results a. “reveled that the adsorption” and “is” instead “to be” 5. Materials and methods a. Pg. 3, line 81 : without “of” between “mixture” and “was” b. Pg.3, line 81: “ after reaching the established agitation time” instead “after agitation” c. Pg. 3, in equation (2): is an extra bracket !!!! d. Pg. 3, line 95: “dye concentrations” and without “whose pH had been adjusted using 0.1 M HaOH or 0.1 M HCl”. e. Pg. 3, line 96: insert “using 0.1 M HaOH or 0.1 M HCl” after „pH 11.0” f. Pg. 3, line 97: “measurement” instead “adjustment”. It is a device that measures pH not adjusted !!! 6. Results and discussion a. Pg.4, line 116: “CH” before “unloaded” and “ loaded CH with MB” instead of “MB loaded CH” otherwise does not make sense !!! b. Pg. 5, Figure 1 - Is needed a clearest picture! c. Pg.5, line 133: “solution” before “pH” d. Pg.6, line 162-163: “grow more slowly” instead of “became reduced” !!! e. Pg. 6, lines 168: “above” or “over” instead of “of” before “90 minutes” f. Pg. 8, line 192: “values” instead of “temperatures” g. Pg. 8, line 193: “As shown in” instead of “as elucidated by” h. Pg.9, line 212: “The Langmuir....” must start as new paragraph i. Pg. 10, line 230/239: reference for Tempkin and D-R models ???? j. Pg. 10, line 260: eq 6: X_m ?? In the literature the notation for adsorption capacity is usually “q”; in D-R eq $K=B$ or β (beta)! k. Pg. 10, line 247: “kj mol⁻¹” after “E<8” l. Pg. 11, Table 1: How can you explain the difference between the obtained values for adsorption capacities in Langmuir and DR model ???? The measurement unit for K_f is (mg/g)(L/mg)^{1/n} !!!!	The terminology has been carefully review .inpg. 5 line 145; pg 6, Line 163; pg 9, line 224; pg 10, line 227; pg 10, line 247; pg 12, lines 285 & 294. pg 13, line 320; pg 14, line 327, pg 15, line 353. Thank you for this observation This has been corrected accordingly (abstract page). This has been corrected accordingly(Pg 3 line 81) This has been corrected accordingly(Pg 3 line 81-82) The statement has been refined as you suggested (Pg 3 line 95) The statement has been refined (Pg 3 line 97) This has been corrected accordingly (Pg 3 line 98). The statement has been reconstructed in a simpler way (Pg 4line 117) A clearer figure has been presented (pg. 5 Fig 1) Noted and corrected (pg. 5 line 134) This has been corrected accordingly (pg. 6 line 164). This has been corrected accordingly (pg. 6 line 170). The statement on temperature has been reconstructed (pg. 8 line 193-194). Corrected as suggested (pg. 8 line 194). This has been moved to another paragraph (pg. 9, line 216). References have been provided (pg. 10, line 233/242) X_m and K have been changed to q_D and β respectively (pg. 10, line 243-245) Correction has been effected (pg. 10, line 250) Unit has been taken



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m. Pg. 13, line 287: eq 8 has a typing mistake **!!!!** It must be: $[\log(q_0 - q_t) = \log q_0 - k_1 \cdot t]$

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In conclusion: I considered necessary that authors review their entire manuscript.

We sincerely appreciate and respect your opinions and contribution to the good quality of this paper but we believe that the integration of the expression for pseudo- first-order $dq/dt = k_1(qe - qt)$, using the boundary conditions of $t=0$ to $t=t$ and $qt=0$ to $qt=qt$, is **$\ln(qe - qt) = \ln qe - k_1 t$** . **BUT $\ln C = 2.303 \log C$, for example $\ln 5$ has the same value as $2.303 \log 5$** , therefore the last expression becomes
 $2.303 \log(qe - qt) = 2.303 \log qe - k_1 t$

$\Rightarrow \log(qe - qt) = \log qe - k_1 t / 2.303$.