



SDI Review Form 1.6

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	MS: 2012/BJAST/2343
Title of the Manuscript:	Extension of comparison of the mopping ability of chemically modified and unmodified biological wastes on crude oil and its lower fractions.

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	Reviewer's comment	Author's comment <i>(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)</i>
<u>Compulsory</u> REVISION comments	Introduction must be thoroughly improved to highlight scientific issue behind the problems tackled by the author. There is no mention of different types of sorbents, modification of sorbents and the nature of sorbate. Literatures cited are not up-to-date, mostly from 2008 or before. Only one from 2009 and even that is from the text book. The objectives are not clearly specified. The methodology did not seem to follow any particular standards eg ASTM standards. The results and discussion should be made more organized and divided into subsection and each should be discussed in great depth eg 1) Oil sorption capacity; 2) Retention, stability and recovery; 3) Re-usability; 4) Effects of modification eg different chemical treatment, lower particle sizes etc . The Tables should all be turned into bar graph and results confined to highlighting those at 325um at 120 mins only. Comparison between different sorbates and carbonized and uncarbonized can be made in one graph. Others can be discussed as results not shown. Any micrographs or structural analyses will be added bonus to strengthen scientific content and discussion.	1. We agree to improve the introduction and the problems tackled. 2. Type of sorbent modification is clearly stated in the methodology- acid and heat activation line, 86-90 Nature of sorbates is stated in lines, 95-96, 320-321, 357-359 and 368-369. 3. More up to date literature has been provide 4. Objective has been reconstructed 5. The methodology is indigenous method we designed 6. The results are clearly stated in Tables 1a-4a, 1b-4b, and 5-8 and the entire section 3.1 line 144-279 are the



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	There are some concerns with regards to results presentation and interpretation : - Why is % of absorption and recovery more than 100%? It seems that for 500% absorption (Table 1a), out of 100mg of sorbate in the field, 600 mg will be sorbed. - At 150°C keratin amino starts to hydrolyze and decompose. This should be clearly explained in the sense that what change was observed at 300°C and how much amount % of sample turned into char. - Activation of char with 1M H₂SO₄ at 500°C opened up the structure by hydrolysis and this is better quantified - Modification should be at least verified with instrumental techniques. The structural and chemical aspects were not tested scientifically, making the work more of theoretical assumption The title should be made more scientific and with some specifics.	summary of the results.6b. We believe the discussion is very clear and detailed within the limit of our study e.g oil sorption capacity (lines 284-290), % retention (lines 335-341, 344-352) % recovery (lines 290-291,370-373) Re-usability (line 299-305, and all the fables) Effect of modification (lines 291, 344-349, and 349-351) Effect of particle size(line 293-294) 6c. all these cannot be discussed in
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		isolation under separate Sub-headings because one effect is dependent on the other eg lines 302-305, 339-341, 344-362,370-374. 6d. type of treatment is on line 85-89 We believe that tables are the best option of presenting the results and not graphs. The Tables are clear, self explanatory and makes room
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		for easy comparison of all data. 7. If we only highlight result at 325 μm at 120mins only, this will be misleading as 120mins is not the peak all experiment. It does not give room for choice in case of actual field work in different peculiar environment, how does one account for % retention and it may not sound like an extension of previous study. We do not have facility for
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		micrograph or structural analysis but will only show the arrangement of the sorbents and mechanism of absorption/adsorption, that we have accounted for in lines 340-344 8. The calculation is simple, it is not based on the sorbates but on increased weight of sorbent after each oil sorption- recovery, lines 105-107, 119-122, 284-286 9. There was complete conversion of all sorbents to black chair which
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		was our aim, the protein sorbents are not 100% protein 10. We do not have such instrument to verify the modification but we have provided an appropriate reference to show what happened to the sorbents after activations lines 344-349. (present ref 28) 11. The title is the best – extension of an already published manuscript
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<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments	To be accepted for publication, the manuscript requires major revision	