



SDI Review Form 1.5

PART A:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	MS: 2012/BJAST/1680
Title of the Manuscript:	Fuel and Physiochemical properties of Cashew (<i>Anacardium Occidentale</i>) Nut oil, its Methyl Esters and Blends.

(Note: Title of different sections as proposed below may differ in case of review paper)



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PART B: Review Comments

In this study, the authors produced methyl ester from cashew seed oil. They characterized the fuel properties of methyl ester. This study is a basic study which presents fuel properties of cashew seed oil methyl ester. Nevertheless, it can be published after minor revision. The comments are given below.

1. There are some writing errors in the manuscript. They should be corrected. **Corrected**
2. The authors stated in the text that the acid value of the oil was 23.68 mg KOH/g (section 2.2). However, in section 3.12, the authors stated the acid value of the oil was only 4.56 mg KOH/g. Which one is correct? If the acid value of the oil is 23.68 mg KOH/g, why did they not perform a pretreatment reaction? **This has been clarified and pretreatment reported.**
3. The authors should give more information about biodiesel production process. What was ester yield? Namely, how much oil was used for transesterification and how much methyl ester was obtained after transesterification? **Biodiesel yield included**
4. The authors must add the fuel properties of diesel fuel to the manuscript. **Added**
5. The authors should clarify if there is a biodiesel or diesel fuel standard in their country. **Clarified**
6. According to results, the viscosity and iodine value of B20 are lower than those of B10. The iodine value and viscosity of biodiesel are higher than those of diesel fuel. Therefore, I think there is missing in the table. **Viscosity of B10 is lower than that of B20 because diesel has higher viscosity The iodine value of B20 is higher than that of B10**



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7. The authors should use “calculated cetane index” instead of calculated cetane number. **Agreed**
8. The authors stated in the text that the water content of the oil was 10% (section 3.7). This is value is too high for transesterification when using a base catalyst. Did the authors perform a drying-removing process for the oil or not to remove water? **The fuel was actually dried**
9. The authors should state which method was used to determine the glyceride values (mono-, di-, triglycerides) and methanol content. AOCS Ca 14-56 test method only determines total, free and combined glycerol. **Method stated**
10. The authors should complete and update the fuel standards given in Table 3 (En 14214 and ASTM D6751-11a). **Completed**

Other Comments

1. Table 6 was not referenced in the manuscript. **Done**
2. The authors should avoid using vertical line in the tables. **Table rearranged**
3. Fig. 1 is not required. It should be removed. **Removed**
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