



SDI Review Form 1.6

Journal Name:	American Chemical Science Journal
Manuscript Number:	2013_ACSj_6575
Title of the Manuscript:	CURE CHARACTERISTICS AND RHEOLOGICAL PROPERTIES OF MODIFIED KAOLIN - NATURAL RUBBER VULCANIZATES
Type of the 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)
<u>Compulsory</u> REVISION comments	The authors should be revised the manuscript as highlighted in the PDF document. I strongly disagree with the authors in Section 3.2: Cure Characteristics. The authors should address the following: 1. How does Guth, Gold and Einstein's equation explain that incorporation of modified kaolin increases viscosity? 2. How does this equation address other constituents in the organoclay (i.e. the oleochemical metal salts of Sodium Rubber Seed Oils, Hydrazine hydrate and kaolin)? 3. How do the authors arrive at the final volume fraction of the organoclay with respect to the constituents? 4. Maximum torque is not a measure of composite modulus and is not verifiable by the authors? Are there classical theories to prove your point? 5. The authors' should not mention the result of the X-ray diffraction of the modified kaolin in the abstract. They should concentrate more on the cure characteristics and rheological properties of the vulcanizates in line with the paper title. 6. Most of the characterization performed should have concentrated more on the vulcanizates than the kaolin in line with the topic. Some authors have discussed extensively on the characterization of the modified kaolin. 7. The discussion on the Rheological Properties in Section 3.3 is very weak and unconvincing. The authors should discuss this heading in line with their	Manuscript revised Classical theories exist, but might not be relevant at this point or out of scope. Agreed Has been improved.



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	observations and in tandem with the figure 4. The authors did not discuss the results of volume fractions 2phr, 4phr, 6phr, and 10phr which was captured in the recipe of Table1. 8. Fig 1b should be re-plotted using appropriate graphing tools. 9.The paper has no CONCLUSION	Conclusion included.
<u>Minor</u> REVISION comments	The authors should be consistent with a particular citation format.	Format has been complied with.
<u>Optional/General</u> comments		