



SDI Review Form 1.6

Journal Name:	American Chemical Science Journal
Manuscript Number:	2014_ACSj_12031
Title of the Manuscript:	EFFECT OF Al ₂ O ₃ FILLER ON MECHANICAL BEHAVIOUR ACRYLIC FILMS
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.

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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	As such SEM and XRD images do not reflect any significant related to the incorporation of Al ₂ O ₃ as filler in PMMA matrix. Thickness of the films must be reported. In general Al ₂ O ₃ gets agglomerate within the polymer matrix. Moreover, mechanical behaviour of the films can be more explained by using other micromechanical technique. It is important that more explanation must be there to explore the possibilities of Al ₂ O ₃ as filler in PMMA.	1. The XRD of the related composite confirms the complexation formed. 2. The FESEM image is used for the verification for size of the alumina in the polymer matrix when incorporated and ultrasonically studied thereafter to check if there is any co-relation with the geometry and size of the composite thus involved. 3. Here the ultrasonic technique is employed to explore the mechanical behaviour. There are also other techniques like DMA but we are interested in ultrasonic non-destructive techniques.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments	Please clarify us ethical issues, if any.	