



SDI Review Form 1.6

PART 1:

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	MS: 2012/BJAST/2587
Title of the Manuscript:	Investigations on Mechanical and Dielectric Properties of NLO material: 4-methoxybenzoin.

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 (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)
Compulsory REVISION comments	The work on 4-methoxy benzoin is already published. This manuscript is just an extension of this works. This work needs major revision before it can be accepted. The following sentences are to be reconstructed or deleted to yield proper meaning. - The dielectric behavior of the crystal was <i>determined</i> at different temperatures in the frequency range of 50 Hz to 5 MHz was <i>investigated</i>. - The <i>growths</i>, structural, vibrational, optical and second harmonic generation (SHG) properties of single crystals of 4-methoxy benzoin were reported earlier - From XRD studies, it is understood that 4-methoxy benzoin <i>belongs to</i> orthorhombic <i>in structure</i> with space group Pca2₁. - The single crystals with flat and smooth faces were chosen for the static indentation tests and the <i>same crystal</i> was mounted on the base of the microscope. - Intended or Indented? - The <i>mechanical properties</i> of crystals are evaluated by mechanical testing which	The manuscript has been revised and included optical absorption studies and also calculated optical bandgap value. The lines has been modified The lines has been modified The lines has been modified Intended



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	reveals certain <i>mechanical characteristics</i>--- This sentence should be removed or replaced with a meaningful sentence g) Among the different testing methods, the Vickers hardness test is <i>more</i> commonly used. h) The dielectric analysis is an important characteristic that can be used to bring knowledge <i>based on</i> the electrical properties of a material medium as a function of temperature and frequency. <i>Based on</i> this analysis, the capability of storing electric charges by the material and <i>capability</i> of transferring the electric charge can be measured. i) where <i>P</i> is the indenter load in <i>kg</i> and <i>d</i> is the diagonal length of (?) with applied load is shown in <i>Fig. 1</i>. The text contains poorly constructed sentences, many languages and typing mistakes, and should be fully revised in this sense. In the section microhardness study, contains only observed results. It lacks discussion part (references should be added for similar observations). Therefore observed phenomenon has to be discussed. The crystal structure and hardness correlation should be established. <i>It is evident from the plot that the microhardness of the crystal increases with increasing load ---why? Give reasons.</i>	The lines has been modified The lines has been modified Unit of diagonal length was included Now reason included
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	<i>It is also observed that as the temperature increases, the value of dielectric constant also increases to a considerable value (Fig. 5). The same trend is observed in the case of dielectric loss versus temperature as well (Fig. 6)--- Any reasons?</i> Fig. 5 is the right figure? Or need to replace? In fig 5 and 6, instead of 'deg C' write degree C or °C or degree Celsius	Now reason included
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments	There are still possibilities to add some more important analysis like electric conductance properties, laser damage threshold investigation etc.	