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### **SDI Review Form 1.6**

Journal Name:	Asian Journal of Chemical Sciences
Manuscript Number:	Ms_AJOCS_40462
Title of the Manuscript:	Comparison of 6-311G(d) and 3-21G(DFT/HF) Methods of 3-Methyl-4-[3-(3-methoxybenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-one
Type of the Article	Original Research Article

### **General guideline for Peer Review process:**

This journal's peer review policy states that <u>NO</u> manuscript should be rejected only on the basis of '<u>lack of Novelty'</u>, provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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

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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		
Minor REVISION comments	The manuscript presents interesting results and I recommend it for publication after some minor revision, as follows below:  In the abstract the authors explained that they used different computational basis set for calculate chemical properties and spectra. Please, in the abstract inform which method was the best.  I recommend that the authors compare their results with those previously published in the follow paper: Medetalibeyoğlu H, Yüksek H. Gaussian calculations of novel 3-(methyl/ethyl/n-propyl)-4-[3-ethoxy-4-(4-methoxybenzoxy)-benzylidenamino]-4,5-dihydro-1H-1,2,4-triazol-5-ones Bulg. Chem. Com. 2017; 49(1),78–89.  Is there not a range in the melting point showed in the line 76?  Please, clarify in the manuscript if it is a novel compound or not.  If there is a crystallographic data of the compound 3 previously published in the literature, compare the theoretical bond angles and bond lengths with the experimental data.  In the UV-Vis results (Figure 3), please provide the experimental UV-Vis spectra.  In the Figure 4, the HOMO representation comes first than LUMO representation. Please, represent the results in the Figure 4, as graphical with the y axis.	
	Insert a discussion on the results presented in the Table 10 and Table 11.  The language in this manuscript must be improved greatly with help of native speakers.	
Optional/General comments		

### **Reviewer Details:**

Name:	Otávio Augusto Chaves
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