



SDI Review Form 1.6

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	2014_IRJPAC_12002
Title of the Manuscript:	Matrix Isolation and Theoretical Study on the Photolysis of CH ₂ ClCOCl
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	This paper is probably publishable, but should be reviewed again in revised form before it is accepted. Comments: this manuscript is very interesting. The main photolysis products of chloroacetyl chloride under UV light irradiation were $\text{CHCl}=\text{C}=\text{O}$ and HCl while the minor products were CH_2Cl_2 and CO. The experimental and computational results proposed the reactions dominated by the concerted mechanism. However, I don't think this is a well prepared work at its present form. 1. The higher resolution figures should be submitted. 2. English in this manuscript should be improved. 3. Authors should elucidate the experimental results more logically. 4. The computational simulation was not explained and depicted clearly in the context. 5. The concerted mechanism is mentioned in the manuscript, however, it didn't interpret the experimental results more convincingly. 6. Fig.2 in the manuscript was not obviously described and pointed in the context.	The authors appreciate reviewer's valuable comments. 1. Tiff format figures with 500 dpi resolution were used and separately attached to the publisher. 2. English was corrected by native speakers. 3. To explain the reaction mechanism, Figs. 6 and 7 and subsection 3.4 were added. 4. As for Fig. 2, calculated wavenumbers were added in text for comparison. 5. Subsection of 3.4 was added. 6. In line # 127 in original manuscript, "Fig. 4" was corrected to "Fig. 2."
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		