



SDI Review Form 1.6

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_29209
Title of the Manuscript:	Ion cyclotron (IC) oscillations excited by nonlinear waves propagating in collision-free auroral ionosphere
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.

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>)



SDI Review Form 1.6

PART 1: Review Comments

	Reviewer's comment	Author's comment <i>(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)</i>
Compulsory REVISION comments		
Minor REVISION comments	<p>The paper is an interesting research devoted to very complex problem, interpretation and explanation of the results of satellite measurements in the ionosphere. The paper can be published. But, to make the text more readable and to be useful for more readers, some improvements and explanations should be done.</p> <ol style="list-style-type: none"> 1. Pp. 1,2. The historical comments are interesting, but they occupy a lot of place. It is better to reduce them and to explain in more details what the electron solitary wave is. Namely, what kind of soliton it is (whistler-like? pulse? envelope? It seems that the pulse-like), what a possible origin is, detailed parameters. Some Figure would be useful that describes the distribution of the electric field and the variation of density within the soliton, as an additional part of Fig. 1. 2. Are the 'clump' and the 'soliton' are synonyms? If yes, please use a single term. 3. What is the 'soliton frequency', p. 20? Are these solitons envelope-like? If yes, please write down their frequency directly. But it seems rather like a terminological misprint. 4. It is better to insert into the beginning of Section 2 'Physical Modelling...' a brief description of the ionosphere parameters (F-layer). 5. The authors consider the case without any collisions. But, as a principal result, a change of the ion temperature is pointed out. This is interesting, but needs more comments, see p. 12, Eq. (32) and below. 	



SDI Review Form 1.6

	Specifically, the transition from Eq. (32) to Eq. (33) needs more explanations. 6. Please remove some misprints like ...Besides, for a plasma density $n_0 \sim 5.7 \text{ cm}^{-3}$,...	
<u>Optional/General</u> comments	The paper can be published after some improvements.	

Reviewer Details:

Name:	<i>Volodymyr Grimalsky</i>
Department, University & Country	<i>Autonomous University of State Morelos (UAEM), Cuernavaca, Mexico</i>