



SDI Review Form 1.6

Journal Name:	Physical Science International Journal
Manuscript Number:	Ms_PSIJ_35518
Title of the Manuscript:	Dense Phase Carbon dioxide: An emerging Non thermal technology in Food Processing
Type of the Article	Review 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 (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	<p>The manuscript entitled with “Dense Phase Carbon dioxide: An emerging Non thermal technology in Food Processing” reviews and summarizes the DPCD technology and its usage in food products. Although there is merit in this manuscript, some revisions need to be performed:</p> <p>1. DPCD is a non-thermal technology with many positive aspects. On the other side, this system has some disadvantages, too. On page 8, authors pointed these disadvantages only with these couple of sentences:</p> <p style="padding-left: 40px;">“..... also including the potentially negative aspects of the technology and their limitations. “..... Also the economics of the process must be assessed.”</p> <p>But, what about the Greenhouse effect which may be caused by usage of carbon dioxide? What about the potential danger of high pressure usage? Precautions that should be taken before studying with DPCD? Please add a few sentences mentioning these issues.</p> <p>2. As far as I have noticed, the year of newest references in the reference list belong to 2009 (Chen et al., and Ferrentino et al.). This type of review should include newer references that might have further information about this technique. Please add some newer literature and update your reference list.</p>	
Minor REVISION comments	<ul style="list-style-type: none"> • Re-arrange the sentence starting with “Different parameters like exposure time.....” on page 2. • You better (up to you) add something about usage of co-solvents after the sentence: “However, higher temperatures may reduce the ability of CO2 to extract low-volatility materials and decrease CO2 solubility in aqueous media” on page 2. • Since they have not been referred to anything before, please clarify what “G- and L-” refer to. (just before the “<i>Inactivation kinetics</i>” title). 	



SDI Review Form 1.6

	<ul style="list-style-type: none"> There are two figures in the manuscript: Figure 3 and 4. Where are Figure 1 and 2? Revise the caption of figures, and please modify y-axis of Fig 3a to be more readable. Page 7; Table 1 has not been cited in the text before. Please mention about the table in the manuscript. Page 5; the sentence says <i>“At high pressure, the inactivation of E. coli exposed to DPCD was dramatically increased as the temperature increased. (Valley et al., 1977). Similar results were earlier observed (Hong et al.,1999)”</i>. Hong’s study does not seem to be earlier than Valley’s, please revise. Besides, you could say something about the death rate of <i>E.coli</i> in both studies, if available. Page 5; sentence: <i>“The inactivation of apple pectin methylesterase (PME) in apple with dense phase carbon dioxide (DPCD) combined with temperatures (35-55 °C) was investigated.”</i> “Apple” was repeated, please revise. Page 6; sentence: <i>“In general, DPCD treatment had less of an effect on the measured variables than the thermal treatment.”</i> Please rewrite this sentence, clarify whether DPCD has positive or negative effects. 	
<u>Optional/General</u> comments	<ul style="list-style-type: none"> English should be carefully checked and sentences should be revised if needed. 	

Reviewer Details:

Name:	Onur Ketenoğlu
Department, University & Country	Department of Food Engineering, Çankırı Karatekin University, Turkey