



SDI Review Form 1.6

PART 1:

Journal Name:	Physical Review & Research International
Manuscript Number:	MS: 2012 PRRI 2642
Title of the Manuscript:	Direct Correlation Function of Hard Molecular Fluid

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	<p>The paper introduces the direct correlation function of hard sphero-cylinder (SC) molecules but the title is not corresponds to content of the text.</p> <p>The second part is well known and described in details in literature (see references in lines 278, 281, 284, 290, 308 and M. Moradi and A. Avazpour, <i>IJMPB</i>, vol. 19, No. 10, (2005)1717-1729). The closest approach is the main new idea of the paper. There is not any formula for closest approach of SC in the text. Also the authors must calculate some physical properties of SC molecular liquids using announced DCF (If they can calculate the DCF of SC).</p> <p>Question: what is the initial vaue of $C(l_1, l_2, m, r)$</p>	<p>Dear Dr</p> <p>Thank you so much for your advice. The title is changed. If the details and steps to solve the OZ equation that is referred in other references are given completely, just because that the paper readers know how to solve this equation completely and clearly. In addition in this paper, details are given more complete than the references that you cited.</p> <p>The formula for closest approach of SCs in second method describe in equations (21) and (22) and lines 146-165, and for first method it has been referred (see reference in line 334).</p> <p>We calculated the DCF of SC and can calculate it, but now in this step and in this paper we will report only the results of DCF. If necessary we can send the program files that are used them for calculating DCF. They are written in MATLAB. In future we will calculate elastic constants, electro – optical response times and the other physical properties of molecular fluid.</p>



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		The initial value of $C(l_1, l_2, m, r)$ is 0.01.
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		
	The second part is well known and described in details in literature (see references in lines 278, 281, 284, 290, 308 and M. Moradi and A. Avazpour, <i>IJMPB</i>, vol. 19, No. 10, (2005)1717-1729).	If the details and steps to solve the OZ equation that is referred in other references are given completely, just because that the paper readers know how to solve this equation completely and clearly. In addition in this paper, details are given more complete than the references that you cited.