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Journal Name:	<u><a href="#">PhysicalScienceInternationalJournal</a></u>
Manuscript Number:	<b>Ms_PSIJ_33660</b>
Title of the Manuscript:	<b>Maxwell Relations for Substances with Negative Thermal Expansion and Negative Compressibility</b>
Type of the Article	<b>Short Research Article</b>

**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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(<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)
<b>Compulsory</b> REVISION comments		
<b>Minor</b> REVISION comments		
<b>Optional/General</b> comments	<p>(1) The manuscript is well written;</p> <p>(2) The reviewer felt fault of numerical comparison between this manuscript and of the other authors; (3) The reviewer would like to know in which area of physics this manuscript is important?</p> <p>(4) Are the equations derived to Gibbs free energy available to mixture of gases? It can be calculated for each gas component and after that a Wilke formula can be applied to obtain the mixture properties?</p>	<p>Dear Referee, thank you for your comments. I introduced a new reference [19] into my paper. I answer your questions:</p> <p>2) 1st, 2nd and 3rd Maxwell relations were not used in calculations by any author, because of rather exotic derivatives they contain. I firstly applied the 3rd one in [11]. The fourth one is applied in the derivation of the Van't-Hoff equation.</p> <p>3) In physics (thermodynamics) and in physical chemistry (thermodynamics). Now substances with negative thermal expansion and compressibility become very important in design of materials with unusual properties.</p> <p>4) Yes, one can apply them to a mixture. In the first approximation, one can do that (we suppose that the gases are independent).</p>