



SDI Review Form 1.6

Journal Name:	<u>Physical Science International Journal</u>
Manuscript Number:	Ms_PSIJ_41666
Title of the Manuscript:	Entropy Is the Sum of Heat Capacities
Type of the Article	Short Communication

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>)



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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)
Compulsory REVISION comments	<p>A Definition of Entropy</p> <p>The authors need to show the connection of their new definition to other definitions.</p> <p>In this article the authors only discuss solids</p> <p>Missing is an association with the definition</p> <p>(i.) Entropy = $R \ln(\text{Number of states})$</p> <p>(ii.) The authors also need to connect their definition to expansion of a gas. change of in entropy in the process of expansion of a gas.</p> <p>(iii.) It is suggested that the authors calculate the change of entropy upon expansion from one known volume into a second known volume at a given temperature with / from their definition.</p> <p>(iv) also discuss going from a gas to a liquid to a solid ...</p> <p>The responses above should be complete, but also can be brief.</p>	<p>I added 4 papers and a book where the reviews of other definitions are given. My definition differs totally from all known definitions, hence it is useless to mention them in the text explicitly.</p> <p>In the literature only the corresponding data for solids can be found. Applicability of my theory to other substances is the subject of future papers.</p> <p>Entropy = $R \ln(\text{Number of states})$ is the definition of entropy in stat. mechanics. The connection of my thermodynamic definition to this one is the subject of future papers.</p> <p>My definition of entropy (and the traditional definition) are general and do not depend on expansion of gas and phase transitions. If $dS = dQ/(T - T_0)$, there is no difference is it the heating of the substance or a phase transition.</p> <p>Calculation of the change in entropy upon expansion from one volume to a second one is the calculation of the configurational entropy. This is the subject of my future papers.</p> <p>I made some additions to my paper highlighted yellow.</p>
Minor REVISION comments		
Optional/General comments	<p>It is hard to know if this is not previously presented in the literature as there are literally thousands of text books in all languages with extensive discussions of entropy. And heat capacity.</p>	<p>I did not find this in the literature. As far as I know, I am the only author of these ideas.</p>