

Review Form 2

Book Name:	Current Research Progress in Physical Science
Manuscript Number:	Ms_BPR_2682
Title of the Manuscript:	Molecular hydrodynamic: A physical approaches
Type of the Article	Book chapter

PART 1:ReviewComments

CompulsoryREVISION comments	Reviewer’s comment	Author’s Feedback(Please correct the manuscript and highlightthat part in the manuscript. It ismandatorythatauthorsshouldwritehis/her feedback here)
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	The manuscript's significance lies in its novel introduction of the "hydrodynamic degree of freedom" to explain gas flow. This concept holds the potential to revolutionize our understanding of gas dynamics and sampling methods. However, to gain widespread acceptance, the manuscript requires further development and empirical validation.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title accurately reflects the manuscript's content, which combines molecular and hydrodynamic principles to analyze gas flow. The term "physical approach" underscores the underlying methodologies employed. Consequently, the title is clear, concise, and informative.	
Is the abstract of the article comprehensive? Do yousuggest the addition (or deletion) of some points in this section? Pleasewriteyour suggestions here.	The abstract is generally comprehensive, but a few additions could enhance its clarity and effectiveness. Specifically, a concise definition of the "hydrodynamic degree of freedom" would benefit unfamiliar readers. Additionally, explicitly stating the key findings of the experiments and highlighting the potential implications of the study would strengthen the abstract's impact.	
Are subsections and structure of the manuscript appropriate?	The manuscript's subsection structure is generally appropriate, following a common and effective format. However, adding a subsection within the "Discussion" section to delve deeper into the experimental results, comparing data with predictions, discussing limitations, and exploring alternative explanations would enhance the manuscript's argumentation and provide a more comprehensive understanding of the research.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	The manuscript demonstrates a solid understanding of hydrodynamic and molecular physics principles, with appropriate experimental methods and thorough data analysis. The conclusions are well-supported by the evidence. However, further experimental validation and theoretical development would enhance the manuscript's overall scientific credibility.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. :	The references are generally sufficient and recent, covering relevant topics in molecular physics, hydrodynamics, and experimental techniques. However, including more recent references, especially for significant advancements in the field, and references addressing the "hydrodynamic degree of freedom" or related topics would further strengthen the manuscript's connection to current research. Potential additional references include the <i>Journal of Chemical Physics</i> , <i>Physical Review Letters</i> , <i>Nature Physics</i> , <i>Annual Review of Fluid Mechanics</i> , <i>Physics of Fluids</i> , <i>Review of Scientific Instruments</i> , and <i>Measurement Science and Technology</i> . By incorporating these references, the manuscript would be more comprehensive and up-to-date.	

Review Form 2

Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?	The article's language quality is generally suitable for scholarly communications. The writing is clear and concise, with appropriate use of technical terms. However, minor grammatical and stylistic issues, such as overly complex sentence structures or awkward phrasing, could be addressed to enhance the language quality. A review by a native English speaker or professional editor could help identify and rectify these minor issues. Overall, the article's language quality is satisfactory and does not significantly detract from its scientific content.	
Optional/General comments	The manuscript offers a valuable contribution to molecular hydrodynamics, combining molecular and hydrodynamic concepts innovatively to provide new insights into gas flow phenomena. The experimental validation strengthens its scientific credibility, and addressing the suggested revisions can enhance its clarity, comprehensiveness, and overall impact.	

PART 2:

	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>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

Name:	Vivien Rossbach
Department, University & Country	University of Blumenau, Brazil