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| Book Name: | [**Current Research Progress in Physical Science**](https://www.bookpi.org/bookstore/product/current-research-progress-in-physical-science-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_4379** |
| Title of the Manuscript:  | **Intermittent-Contact Heterodyne Force Microscopy** |
| Type of the Article | **Book Chapter** |

**Special note:**

**A research paper already published in a journal can be published as a Book Chapter in an expanded form with proper copyright approval.**

**Source Article:**

**This chapter is an extended version of the article published by the same author(s) in the following journal.**

**Journal of Nanomaterials, Volume 2009, Article ID 762016, 2009.**

**Available:**[**https://doi.org/10.1155/2009/762016**](https://doi.org/10.1155/2009/762016)

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| PART 1: Comments |
|  | Reviewer’s comment | Author’s Feedback*(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimumof 3-4 sentences may be required for this part.** | This manuscript presents a novel approach to nanoscale characterization using Intermittent-Contact Heterodyne Force Microscopy (IC-HFM), offering enhanced sensitivity in detecting tip-sample interactions via the beat effect. By leveraging ultrasonic excitation at the tip and sample surfaces, the method enables precise detection of nanoscale mechanical properties, providing valuable insights into surface elasticity, structural inhomogeneities, and phase variations. The findings contribute to the advancement of force microscopy techniques, with potential applications in materials science, nanomechanics, and semiconductor research. This work paves the way for improved high-resolution imaging and more accurate mechanical characterization of advanced materials. |  |
| **Is the title of the article suitable?****(If not please suggest an alternative title)** | **Yes** |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **Yes** |  |
| **Is the manuscript scientifically, correct? Please write here.** | Yes. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.****-** | If possible, please insert the following references:[1] ŞTEFAN ŢĂLU, Micro and nanoscale characterization of three dimensional surfaces. Basics and applications, Cluj-Napoca, Napoca Star Publishing house, 2015. ISBN 978-606-690-349-3.[2] DINARA SOBOLA, ŞTEFAN ŢĂLU, SOLAYMANI SHAHRAM, GRMELA LUBOMÍR, Influence of scanning rate on quality of AFM image: study of surface statistical metrics. Microscopy Research and Technique, vol. 80, no. 12, p. 1328-1336, 2017. DOI: 10.1002/jemt.22945. |  |
| Is the language/English quality of the article suitable for scholarly communications? | Yes |  |
| Optional/Generalcomments | Minor revision required. |  |

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| **PART 2:**  |
|  | **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)* |
| **Are there ethical issues in this manuscript?**  | *(If yes, Kindly please write down the ethical issues here in details)* |  |

**Reviewer details:**

**Stefan Talu , The Technical University of Cluj-Napoca, Romania**