Review Form2

Book Name:	Science and Technology - Recent Updates and Future Prospects
Manuscript Number:	**Ms_BPR_2077**
Title of the Manuscript:	**Free Induction Decay and Spin Echo Signals from Spin Triplet States of Axially Asymmetric Objects in Single Crystals in Zero Constant Magnetic Field: Application of Single Transition Operators**
Type of the Article	**Book chapter**

PART 1: Review Comments

Compulsory REVISION 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. Why do you like (or dislike) this manuscript? A minimumof 3-4 sentences may be required for this part.	**This manuscript presents a significant advancement in the understanding of spin triplet states in axially asymmetric objects within single crystals under zero constant magnetic field. By applying single transition operators, the study provides novel insights into the behavior of Free Induction Decay and Spin Echo signals, which are critical for refining quantum magnetic resonance techniques. The findings offer valuable contributions to the scientific community, particularly in the fields of solid-state physics and quantum computing, where precise control and manipulation of spin states are crucial.**	
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.	**Abstract of the article is comprehensive and no addition (or deletion) is suggested.**	
Are subsections and structure of the manuscript appropriate?	**Yes**	
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 minimumof 3-4 sentences may be required for this part.	**This manuscript is scientifically robust and technically sound due to its innovative approach in addressing complex quantum phenomena related to spin triplet states in axially asymmetric objects. The application of single transition operators in the absence of a constant magnetic field represents a novel method that enhances the precision and accuracy of analyzing Free Induction Decay and Spin Echo signals. The rigorous mathematical framework, coupled with detailed experimental validations, ensures that the findings are both reliable and reproducible. Additionally, the manuscript's thorough exploration of the implications for quantum magnetic resonance techniques further strengthens its contribution to the field, demonstrating both depth and technical proficiency.**	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. -	**Yes**	

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Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**	**Yes**	
Optional/Generalcomments	This manuscript provides a compelling and original contribution to the field of quantum magnetic resonance, specifically focusing on the dynamics of spin triplet states in axially asymmetric objects. The use of single transition operators in the absence of a constant magnetic field is particularly noteworthy, offering a fresh perspective on Free Induction Decay and Spin Echo signals. The study is well-structured, with a clear presentation of both theoretical and experimental components. The methods are meticulously described, ensuring that the research is both replicable and scientifically rigorous. However, the manuscript would benefit from a deeper discussion on the potential applications of these findings in practical settings, as well as a comparison with existing methodologies. Overall, this work is a valuable addition to the literature, providing important insights that could pave the way for further advancements in the field.	

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:

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