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| Book Name: | [**Chemistry and Biochemistry: Research Progress**](https://www.bookpi.org/bookstore/product/chemistry-and-biochemistry-research-progress-vol-1/) |
| Manuscript Number: | **Ms\_BPR\_5522** |
| Title of the Manuscript: | **Characterization and Assessment of the Photo-catalytic Efficiency of Palladium/Silver Doped TiO2Nanoparticles** |
| 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 Applied Sciences and Environmental Management, 22 (9) 1369–1375, 2018.**

**DOI:** [**https://dx.doi.org/10.4314/jasem.v22i9.01**](https://dx.doi.org/10.4314/jasem.v22i9.01)

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | 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 minimum of 3-4 sentences may be required for this part.** | **This manuscript offers valuable insights into enhancing TiO₂ photocatalysts through palladium and silver doping. It demonstrates improved surface area, pore structure and crystalline properties for increased photocatalytic efficiency. The findings support the development of advanced materials for environmental remediation. Co-doping emerges as a promising strategy for next-generation photocatalysts.** |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **The current title, "Characterization and Assessment of the Photo-catalytic Efficiency of Palladium/Silver Doped TiO₂ Nanoparticles", is generally suitable as it reflects the content of the study well.** |  |
| 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. | **The abstract of the article is informative and includes key aspects such as the materials studied (Pd/Ag-doped TiO₂), methods of preparation and characterization (XRD, BET) and general findings on photocatalytic performance. However, it could benefit from several improvements in clarity, structure, and completeness.**  **Suggested improvements:**  **Clarify the objective:** The abstract should clearly state the research aim at the beginning, e.g., "This study investigates the effect of Pd and Ag doping on the photocatalytic efficiency of TiO₂ nanoparticles."  **Better structure:** The current abstract combines background, methods, and results in a somewhat disorganized way. A more structured flow (Objective → Methods → Results → Conclusion) would improve readability.  **Quantitative results:** Include key numerical values (e.g., surface area, crystallite size, or efficiency metrics) to give readers a clearer picture of the outcomes.  **Avoid repetition and redundancy:** Phrases such as "The BET shows..." and "It also gives high surface area..." can be made more concise.  **Highlight significance:** Conclude with a stronger statement about the implications of the findings, e.g., "These results demonstrate the potential of Pd/Ag co-doped TiO₂ for advanced environmental remediation applications." |  |
| **Is the manuscript scientifically, correct? Please write here.** | **Yes, the manuscript is scientifically correct, but minor revisions in language, data presentation and clarity would strengthen its credibility and impact.** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | **The manuscript includes several foundational and relevant references, such as Ohtani et al. (2010) and Sing et al. (1984), which support the core concepts of TiO₂ photocatalysis and material characterization. However, the reference list is limited in terms of recency, with most sources published over a decade ago. To strengthen the literature base and demonstrate the study's relevance to current research trends, the authors are encouraged to incorporate more recent works from the past five years. Including these would provide a more comprehensive and updated scientific foundation for the manuscript.** |  |
| Is the language/English quality of the article suitable for scholarly communications? | **The English in the manuscript is mostly understandable, but it needs improvement for academic publishing. There are grammar mistakes, unclear sentences and some technical terms that could be used more accurately. These issues make the paper harder to read and less professional. It is recommended that the authors revise the language carefully in scientific writing to improve clarity and flow.** |  |
| Optional/General comments |  |  |

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| **PART 2:** | | |
|  | Reviewer’s comment | Author’s comment *(if agreed with the 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 detail)* |  |

**Reviewer details:**

**S.Sivakumar, India**