

Review Form 3

| | |
|--------------------------|--|
| Journal Name: | Asian Journal of Physical and Chemical Sciences |
| Manuscript Number: | Ms_AJOPACS_129440 |
| Title of the Manuscript: | Mapping of Hydrothermal Alteration Minerals Related to Tongue Tonguey (Sirba, Niger) Gold Mineralization Using Landsat 8 Imagery |
| Type of the Article | Original Research Article |

PART 1: Comments

| | Reviewer's comment | Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i> |
|---|---|---|
| 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. | <p>1-The manuscript presents a significant contribution to the field of mineral exploration, particularly in the context of gold mineralization in the study area.</p> <p>2-The authors effectively map hydrothermal alteration minerals associated with gold deposits, providing a cost-effective and efficient method for identifying potential exploration targets.</p> <p>3-The results show valuable reference for future research and exploration efforts, potentially leading to more sustainable practices in resource exploration</p> | |
| Is the title of the article suitable? (If not please suggest an alternative title) | The title of the article may be acceptable considering the contents of the paper . | |
| 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 should be revised both in terms of writing and scientific content. | |
| Is the manuscript scientifically, correct? Please write here. | <p>1-In the introduction, it would have been better to first address the importance of gold mineralization in the region, and then discuss the significance of recording alterations and remote sensing methods .</p> <p>2 -Nowadays, exploratory studies use ASTER and hyperspectral images, so it raises the question of why the authors have relied solely on Landsat 8 data .</p> <p>3- Additionally, very simple and basic methods were used in image processing. It would have been better to use modern machine learning-based methods for comparison of results .</p> <p>4-The maps and images are well designed and prepared. However, the captions of the figures should be rechecked for font and size .</p> <p>5-There is no explanation regarding the sampling of geochemical samples in the region .</p> <p>6-The type of samples, number of samples, analysis methods, elements analyzed, dominant lithologies in the region, and existing alterations in the area have not been explained, which should have been addressed .</p> <p>7-No criteria have been provided for validating the anomalies and the final target map .</p> <p>8-It would have been better if the conclusion were completed .</p> <p>9-Adding an acknowledgment section would have been preferable.</p> | |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | To some extent. | |

Review Form 3

| | | |
|--|--|--|
| Is the language/English quality of the article suitable for scholarly communications? | To some extent. | |
| <u>Optional/General</u> comments | Dear Editor Journal of Asian Journal of Physical and Chemical Sciences Thank you for your consideration. I evaluated the manuscript titled " Mapping of Hydrothermal Alteration Minerals Related to Tongue Tonguey (Sirba, Niger) Gold Mineralization Using Landsat 8 Imagery " and propose the major revision for improving the paper. | |

PART 2:

| | | |
|--|---|---|
| | <u>Reviewer's comment</u> | <u>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)</u> |
| <u>Are there ethical issues in this manuscript?</u> | <u>(If yes, Kindly please write down the ethical issues here in details)</u> | |

Reviewer Details:

| | |
|---|--------------------------------------|
| Name: | Aynur Nasser |
| Department, University & Country | Islamic Azad University, Iran |