

September 25(th), 2023

Solid Earth

Dear Reviewers,

We are very grateful to Reviewer for reviewing the paper so carefully. We have tried our best to improve and made some changes in the manuscript. These changes will make the paper is more reasonable.

Responds to the reviewers' comments:

Reviewer #1

Specific Comments

1. The study is related to one of the huge ore-bearing formation of the graphite deposits. Please provide more detailed discussion on the geochemistry of the graphite-bearing rocks in the formation, based on the results, implications and conclusions of other previous studies in the same area.

Response: We value your feedback and suggestions, however, this is the first study of graphite deposits in this area.

2. The formats of some reference need to be corrected.

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Small annotation errors

Line 12, change “high” to “relatively higher”;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Line 25, change “desirable” to “remarkable”;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Line 94, change “directional” to “oriented”;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Line 97, change “interstitial between” to “interstitial to”;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Line 113, change “favourable” to “economically valuable”;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Line 122, change “Major elements compositions” to “Major element compositions”;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Line 154, change “ $\mu\text{g/g}$ ” to “ppm”;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Line 159, “ δC ”, typo;

Response: We are very sorry for our incorrect writing and it is rectified at Line.

Line 217, change “apparent” to “evident”;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Fig.1, the legend of Fig.1b is too small;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Fig.5, the labels are too small;

Response: We appreciate it very much for this good suggestion, and we have done it according to your ideas.

Fig.13, check the typos in labels.

Response: We are very sorry for our incorrect writing and it is rectified at Line.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,

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