

Address to the opening ceremony of the 1st International Biopetrological Congress

—by Ya-Sheng Wu, the chairperson of International Biopetrological Association

Good morning! Every distinguished guests, scholars, students and friends,

Today is a great day, because at this moment, the first International Biopetrological Congress is opening at the beautiful city of Shijiazhuang.

Biopetrology is a new interdisciplinary subject, which includes at least 5 branches, the study of biomineralization, the study of ancient and modern reef rocks, and the study of ancient and modern microbial rocks. All rocks formed by organism's actions are called bioliths. Biopetrology is a new subject that studies the formation mechanism, environments of bioliths, and their related mineral ores and resources.

The research of bioliths has a history of more than 100 years. For example, the study of stromatolites began in 1908. However, in recent decays, the development of biopetrology seems to be very slow: the number of researchers is small, the important results are few, and the impact of this subject is not great. Therefore, we must think deeply about what has caused the current difficult situation of these subdisciplines, and how can we put it to develop at higher speed.

Through a lot of thinking, we have got two points: first, interdisciplinary crossing and fusion is one of the means to promote the development of the discipline; second, the application of new thoughts and new methods are another approach to promote the development of the discipline, and the development of biopetrology needs the promotion of new thoughts and new methods.

The first meaning of fusion is to integrate the several branches of the research of bioliths into the new discipline of biopetrology.

Combining the study of biopetrology with the study of earth system evolution, paleogeography, and studies of mineral ores and resources, that is, the combination of biopetrology with other disciplines, is the second meaning of fusion.

The result of the first fusion is the birth of the new discipline of biopetrology, and the goal of the second fusion is to identify a large number of important mineral ores and resources that cannot be identified by other disciplines, and decode the information about the evolution of life and Earth system that cannot be obtained by other disciplines.

New thought and new methods are an area where a lot of things can be created. The new thoughts in research of microbial rocks include: How to identify and classify microbial rocks according to micro- rather than macro features, how to study the mold holes in microbial rocks and decode the information of ancient microbial communities from mold holes, how to perform retrorse research on the fabrics and composition of microbial rocks, and how to decipher the information of life and environmental evolution in microbial rocks.

The association is an approach to academic exchange, and is one of the means to promote the development of the discipline.

The International Biopetrological Asociation was founded in August 2021, and has more than 300 members from 29 countries. It is the home of scholars and students of biopetrology and related disciplines from all over the world.

According to the constitution of the International Biopetrological Association, 1 international academic congress needs to be held every two years. And a congress needs to be held this year.

In recent years, scholars such as Jiang Hongxia at Hebei GEO University have discovered several exquisite microbial rock outcrops of the ages of the early Paleoproterozoic, Mesoproterozoic, and Cambrian in the surrounding area of Shijiazhuang, and they want to share these findings with researchers around the world. Therefore, Shijiazhuang was selected as the venue of this meeting.

The first International Biopetrological Congress is a milestone-like event in the history of biopetrology. I am delighted that so many scholars and students are here attending the meeting. Your attendance represents your support, love and expectation for this neonatal discipline.

Your expectation shows that this discipline will have an extremely bright prospect, and your support is the driving force for the development of this discipline!

On behalf of the International Biopetrological Association, I would like to express my heartfelt thanks to you all.

Finally, I wish this conference a complete success! I wish all the experts and students participating in the conference a lot of harvest and joy!

——at 8:20-8:30 a.m. on Sept. 23, 2023