



CHINA 中国地质(英文)
GEOLOGY



China Geological Survey conducted the first natural gas hydrates production test in the South China Sea

The introduction of traditional Chinese mineral medicine

Citation: 2020. The introduction of traditional Chinese mineral medicine, *China Geology*, 3, 355–356. doi: [10.31035/cg2020044](https://doi.org/10.31035/cg2020044).

View online: <https://doi.org/10.31035/cg2020044>

Related articles that may interest you



China Geology

Journal homepage: <http://chinageology.cgs.cn>
<https://www.sciencedirect.com/journal/china-geology>



News and Highlights

The introduction of traditional Chinese mineral medicine

Recently, the COVID-19 pandemic outbreaked and raged across the world, threatening the safety of human life worldwide. Scientists from various countries are working hard to develop various medicines to stop the spread of the Novel coronavirus. Among them, experts on Traditional Chinese Medicine (TCM) used Chinese medicines “Lianhua Qingwen Capsule” and “Clearing lung and expelling toxin soup” to fight against the virus and save the lives of infected people, which achieved very positive clinical observation results. In the above two medicines, there is one kind of mineral medicine—gypsum.

The history of Chinese medicine in China is long and profound. Chinese medicinal materials are divided into three categories according to raw materials: Plants, minerals and animals. Mineral medicine has been used to treat diseases for more than 2000 years. There are more than 670 kinds of medicinal materials in the “Shen Nong’s Materia Medica” in the Qin and Han Dynasties (221 BC–220 AD), including 46 kinds of mineral medicines; in the book of “The Treatise on Typhoid Miscellaneous Diseases” by Zhong-jing Zhang, there are 21 kinds of mineral medicines and a total of 58 kinds of prescriptions containing minerals; there are 1892 kinds of Chinese medicinal materials recorded in the “Compendium of Materia Medica” of the Ming Dynasty (1368–1644), of which 265 kinds of mineral medicines accounted for 14% of medicines documented. Commonly used mineral medicines are shown in [Table 1](#).

Minerals are widely used in Chinese medicine, classified according to efficacy:

Heat-clearing and detoxifying minerals, including: Gypsum, thenardite, chalcantite, borax, niter, calcite, hydrocerussite, halite, realgar, orpiment, cinnabar, etc. For example, gypsum is an important ingredient in “Lianhua Qingwen Capsule”, which play an important role in the treatment of COVID-19.

Hemostatic minerals include: Limonite, hematite, kaolinite, muscovite, chalcantite, kalinite, cinnabar, calcite, dolomite, mammalian skeletal fossils, etc.

Minerals that eliminating phlegm and diminishing swelling include: Pyrolusite, hematite, magnetite, cinnabar, pyrite, carnallite, fluorite, thenardite, borax, etc.

Bactericidal and insecticidal minerals include: Realgar, orpiment, galena, arsenopyrite, kalinite, talc, mercury, sulfur, etc.

At present, geological work is at a turning point. The geologists, especially mineralogists, must also keep up with the needs of society and study new uses of minerals. In this regard, Professor You-you Tu distilled the artemisinin from traditional Chinese medicine to extract medicines for the treatment of “malaria” for the benefit of mankind. The geologists should also have such thoughts and ideas.

Contact

China Geology Editorial Office, Development and Research Center of China Geological Survey

Address: No. 45 Fuwai Street, Xicheng District, Beijing 100037, P.R. China

Tel: +86-10-58584239

Email: chenxijie@cags.ac.cn

(by Xi-jie Chen, Li-qiong Jia, Zi-guo Hao, Ting Jia)

Table 1. The efficacy of some mineral medicines.

Efficacy	Heat-clearing and Detoxifying	Eliminating Phlegm and Expectorant lung	Cough-cold and Qi-deficiency	De-dampness and anti-diarrhea	Hemostasis	Dispelling wind and eliminating dampness	Warming the kidney and inducing diuresis	Eliminating phlegm and diminishing swelling	Sedative and antispasmodic	Ulceration and toothache cure	Sterilization
Natural element					Copper, sulfur			Gold, silver			Silver, copper, mercury, sulfur
Oxide	Lead-oxide	Arsenic, pyrolusite, lithargyrum, lead-oxide		Limonite	Limonite, hematite	Magnetite		Pyrolusite, hematite, magnetite	Hematite		Arsenic, pyrolusite, lithargyrum, lead-oxide
Sulfide	Realgar, orpiment, galena, cinnabar	Galena, bornite		Realgar, orpiment	Cinnabar			Cinnabar	Cinnabar		Realgar, orpiment, galena, arsenopyrite, tinstone
Halide	Halite					Halite, chlorite		Carnallite, fluorite	Fluorite		
Carbonate	Hydrocerussite, calcite	Azurite	Stalactite	Heteroclas	Calcite, dolomite, calamine	Azurite				Stalactite, calamine	Azurite, hydrocerussite
Sulfate	Gypsum, thenardite, chalcantite	Chalcantite	Gypsum	Melanterite, alunite	Melanterite, chalcantite, alunite		Gypsum, thenardite,	Thenardite	Gypsum	Gypsum	Melanterite, alunite
Silicate	Talc		Vermiculite, quartz	Talc, muscovite, kaolinite, montmorillonite	Zeolite, kaolinite, muscovite, gypsum		Talc, hornblende, quartz	Kaolinite	Hydromica, vermiculite, quartz		Talc, montmorillonite
Other	Borax, niter	Borax			Mammalian skeletal fossils		Niter	Borax, niter	Mammalian skeletal fossils	Borax	

Notes: after Yan WD, Xu SG, Hu RB, Guo J, Lin BL. 2020. China Mining News. Application of mineral resources in medical and health industry (in Chinese).