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Society for Geology Applied to Mineral Deposits

8th Biennial SGA Meeting August 18-21, 2005 Beijing, China






第八屆國際礦床地質會議
北京






礦

主題
礦床研究——應對全球挑戰

Mineral Deposit Research: Meeting the Global Challenge

Co-organizers

-  China University of Geosciences (Beijing)
-  Institute of Mineral Resources,
-  Chinese Academy of Geological Sciences
-  National Natural Science Foundation of China
-  China Society of Geology

-  Society of Economic Geologists
-  International Association on the Genesis of Ore Deposits
-  Institute of Geology and Geophysics, CAS
-  Institute of Geochemistry, CAS
-  State Key Lab for Mineral Deposit Research (Nanjing University)



Contact: Dr. Jingwen Mao, Institute of Mineral Resources, CAGS, 26 Baiwanzhuang Rd., Beijing 100037, China, E-mail: mail@sga2005.com, Website: <http://www.sga2005.com>



8th Biennial SGA Meeting Beijing 18-21 August 2005 SECOND CIRCULAR



Invitation to the 8th SGA Biennial Meeting on "Mineral Deposit Research: Meeting the Global Challenge"

Message from the President (Yuchuan Chen) and Secretary General (Jingwen Mao)

Dear Colleagues, the Chinese economy is rapidly growing which is reflected in the expanding Chinese and global markets for minerals. The future mineral resource need of the global community depends on the discovery of new and unconventional resources that must be linked to ore deposit research. This meeting provides an exceptional opportunity to participate in technical presentations, workshops, and field trips organized by university, industry, and government geologists dedicated to the study of ore deposits.

Beijing provides an exciting venue for the conference. Modern tourist facilities, interesting cultural attractions, and unique historical sites provide a background for the conference. Considering the tremendous progress in research and exploration of Chinese mineral deposits along with the remarkable economic growth during the last twenty years, the 8th SGA Biennial Meeting in Beijing provides opportunities for exchanging new ideas on research, exploration and mine development. Numerous field trips will be offered to some of the world's largest ore deposits. We warmly invite you to make plans to participate in the 8th BIENNIAL SGA MEETING in Beijing.

Message from the SGA President (Dave Leach)

The 2005 BIENNIAL SGA MEETING in Beijing marks a major milestone for SGA as it will be our first Biennial Meeting outside of Europe. The Beijing venue reflects SGA's commitment to our growing international membership and to the global community of ore deposit geologists. The conference brings together academic and government researchers with industry geologists from around the world to integrate results from mineral resource exploration and ore deposit research.

Beijing is an ideal venue to focus on the global challenges to find new mineral resources. China's impressive economic growth is accelerating the need for new mineral resources and highlights the need for new insights into why and where ore deposits form in the Earth's crust. Beijing provides an excellent departure point for stimulating field trips to important ore deposits in the region. The conference benefits from several IAGOD and SEG-organized technical sessions and field trips. An exciting social and guest program will provide additional highlights to the conference.

SGA and the Beijing Organizing Committee are working to make the conference accessible to students and economically disadvantaged professionals. We have a committee that is focused on student needs for the conference. We thank Doug Kirwin of Ivanhoe Mines for organizing corporate sponsorships for students and professionals in need of travel assistance.

On behalf of SGA, I encourage you to join us in Beijing in 2005 for this exceptional conference.

Message from the CUGB President (Ganguo Wu)

I am very pleased that China University of Geosciences (CUG) is

honored to be the venue of the 8th BIENNIAL SGA MEETING. On behalf of CUG, I sincerely welcome all participants from all over the world to our university. CUG is a comprehensive university offering educational opportunities in many areas with geology, resources, environment, and geological engineering technology as the main educational and research activities which are coordinated with various science disciplines, engineering, liberal arts, management, economics and law. During the past fifty years, more than 80,000 scientific graduates were educated by CUG, including many academic masters and political figures. This meeting will also provide a great opportunity for the scientists of CUG to exchange their latest research results on geosciences with the colleagues over the world.

I promise to provide everything possible for the meeting and trust that the 8th SGA Biennial meeting will be a successful and fruitful.

Place, date, theme and meeting language

The 8th Biennial SGA Meeting will be held in Beijing, August 18-21, 2005 in the Academic Exchange Center of the China University of Geosciences, 29 Xueyuan Road, 100083. The Meeting language will be English.

Deadlines

January 31, 2005 - submission of extended abstracts, early registration for field trips and application for student grants

February 28, 2005 - notification of abstracts acceptance.

March 15, 2005 - final submission of abstracts and notification of student grants

April 30, 2005 - payment of early registration, short courses and field trips fees

Insurance

The Organizing Committee will not be liable for any personal accidents or illness of the meeting participants. Attendees are responsible for personal insurance coverage.

Venue and Climate

The Meeting will be held in the China University of Geosciences (Beijing), 29 Xueyuan Road, Haidian District, Beijing 100083, PR China. The weather during the conference should be pleasant with temperature around 30°C.

Registration fee

By 2005-4-30: Members of SGA/SEG/IAGOD/G.S.G 300US\$; non-members 350 US\$; Student members 100 US\$; Student non-members 200 US\$; accompanying guests 50 US\$

After 2005-4-30: Members of SGA/SEG/IAGOD/G.S.G 400US\$; non-members 450 US\$; Student members 150 US\$; student non-members 250 US\$; accompanying guests 100 US\$

Icebreaker Party

All registered participants are invited to attend the Icebreaker Party, held in the Canteen close to the Academic Exchange Center, beginning

Scientific Programme

1. Tectonics, lithospheric, and deep mantle controls on global metallogenic provinces and giant ore deposits
2. Basin evolution: base and precious metal mineralization in sediments
3. Uranium deposits: metallogeny and exploration
4. Magmas and base-metal ore deposits
5. Epigenetic gold systems
6. Submarine ore systems and ancient analogues: Global comparisons of VMS (IGCP 502)
7. Understanding ore systems through precise geochronology, isotope tracing and microgeochemistry
8. Geology and economics of non-metallic resources: CANCELLED (abstracts transferred to 9.)
9. General economic geology
10. Mesozoic to recent geodynamics and metallogeny of eastern Asia
11. Metallogeny of the Tethys-Himalayan Orogen
12. Geodynamics and metallogeny of the Altaid Orogen (IAGOD +IGCP-473)
13. Metallogeny of Au-Ag-Se-Te mineralized systems (sponsored by IAGOD and IGCP-486)
14. Conceptual targeting of mineral deposits
15. Exploration, Discovery, and Mine Developments in China

at 6 PM, Aug. 17.

Short Courses and Workshops

Short courses and workshops will be offered before the meeting. All persons wishing to attend a short course or workshop must be pre-registered for the course even if the course is free of charge. Please complete the form in the Supplement Information. On-site registration may be possible for some short courses providing that space is available.

SHC-1

Geology, metallogeny, and numerical modelling of supergene oxidised zinc deposits

Date: August 16-17, 2004; Place: Academic Exchange Centre, China university of Geosciences

Speakers: Gregor Borg (gregor.borg@geo.uni-halle.de) Jörg Reichert and Farahnaz Daliran

Martin-Luther-University Halle-Wittenberg, Halle, Germany

Lately, supergene non-sulphide zinc deposits have attracted much attention as alternative zinc exploration targets, due to their technical, economic, and ecological advantages.

The 1.5 day course will present a number of different examples from this class of deposits and will cover various continents, host rock lithologies, and geological settings. This includes the presentation and discussion of past and current metallogenetic concepts and classifications as well as strategies in and obstacles to exploration of these deposits. A module on geochemical numerical modelling - using PHREEQC software - will present firm thermodynamic constraints on some of the most important mineral reactions and this will also include a hands-on exercise with this programme. (Maximum: 30 participants)

Enrolment: 170.00 \$ for professionals, and 20.00 \$ for students

SHC-2

Geochemical Mapping — Regional, National and Global

Speakers: Xie Xuejing (xuejing@public.bta.net.cn) and Wang Xueqiu

Dates: August 16-17 (one and half days), 2005; Place: Academic Exchange Centre, China university of Geosciences

The 1.5 day course will include one day's lectures on historical development of geochemical mapping concepts and methodology, China's regional and national geochemical mapping projects. Now strategy for mineral exploration based on the development of geochemical mapping. The application geochemical mapping to solving agricultural and environmental problems. Recent proposal of global geochemical mapping along world major rivers. Geochemical mapping will provide important basic information for mineral resources exploration and environmental assessment, metallogenic and ore genesis study. In the other half day a visit will be organized to IGGE's analytical laboratory and world famous standard reference sample bank in Langfang (70 km from Beijing). (maximum: 50 participants)

Enrolment: 50.00 US\$ for per person (cover the travel to Langfang and

the second day lunch).

SHC-3

Metallogeny: current theory and exploration models

Speakers: Steven Scott (scottsd@geology.utoronto.ca), Xuanxue Mo (moxx@cugb.edu.cn), Kaihui Yang, David Leach and Noel White. Other international experts to be announced

Date: August 15-17, 2005

Place: Academic Exchange Centre, China university of Geosciences

An in-depth examination with lectures and laboratory sessions of a spectrum of ore deposits, both modern and ancient, presented by experts from several countries. The focus is on up-to-date research and industrial applications. Laboratory sessions will involve examination of hand specimens and maps of important ore deposits from around the world. Students are particularly welcome. (Maximum: 50 participants).

Enrolment: 170US\$ for professionals and 20US\$ for students.

SHC-4

Magmatic sulfide deposits: Geology, geochemistry and exploration

Speakers: Yusheng Zhai, Anthony J. Naldrett, Edward M. Ripley, Chusi Li

Contact to: Dr. Shangguo Su (susg@cugb.edu.cn)

Date: August 22-24, 2005

Place: Academic Exchange Centre, China University of Geosciences

I. Introduction

Current state of research and exploration of Ni-Cu-PGE deposits

II. General Principles

1. Distribution of Ni, Cu and PGE in mantle and composition of partial melts; 2. Sulfur solubility in silicate melts; 3. Ni, Cu and PGE partitioning (a) between sulfide and silicate melts, (b) between sulfide melts and olivine, (c) between sulfide melts and mss; 4. "R" and "N" factor; 5. Simple phase equilibria of Fe-Ni-Cu-S systems; 6. Fractionation of sulfide melts; 7. Systematics of S and Re-Os isotopes.

III. Ni-Cu Deposits

1. Komatiite-related (an update on Western Australia, Raglan, Thompson); 2. Flood basalt-related (Noril'sk, Duluth, Insizwa); 3. Ferropicrite-related (Pechenga); 4. Anorthosite complex-related (Voisey's Bay); 5. Other gabbro-related (Jinchuan etc); 6. Latest developments at Sudbury.

IV. PGE deposits

1. Fundamental aspects; 2. "Reef"-style deposits in large layered intrusions including an update on the Bushveld Complex; 3. Marginal deposits; 4. Ural-Alaskan style deposits; 5. Other deposits.

V. Some applications to exploration

1. Use of olivine composition in exploration; 2. Ni-Cu deposits: genetic controls and exploration strategy; 3. Geochemical technique for PGE exploration in layered intrusions.

Enrolment: 170US\$ for professionals and 20US\$ for students

Workshop-1

Gold deposits: New Development and Exploration (SEG workshop)
 Speakers: Richard Goldfarb, Noel White, John Muntean, and Craig Hart (craig.hart@gov.yk.ca)

Dates: Date: August 16-17, 2005; Place: Academic Exchange Centre, China university of Geosciences

The Society of Economic Geologists is offering its very successful Gold Deposit Workshop, as previously held in Beijing and Moscow. Speakers will include Richard Goldfarb (USGS) - Orogenic gold Deposits, Noel White (consultant, Brisbane) - Epithermal Gold Deposits, John Muntean (Placer Dome) - Carlin-type Gold Deposits, and Craig Hart (Yukon Geological Survey) - Intrusion-related Gold Deposits. Materials presented will be rich in geological descriptions of some of the world's best examples of these deposit-types, as well as sections on exploration methods. This workshop would be of interest to all geologists, particularly those involved in gold exploration. Professionals: \$100 US Students: \$20

Workshop-2

Metallogeny of Intrusion-related gold deposits in China and adjacent countries

Speakers: Shunso Ishihara (Geological Survey of Japan), Timothy Baker (School of Earth Sciences, James Cook University, Queensland, Australia), Feng-Jun Nie (Institute of Mineral Resources, Chinese Academy of Geological Sciences, Beijing, China, nfj@mx.cei.gov.cn)

Date: August 17, 2005; Place: Academic Exchange Centre, China university of Geosciences

The intrusion-related gold deposits and their associated plutonic provinces are globally widespread. Investigation and exploration of this type gold deposit have attracted much attention as an important exploration target. Geological, geophysical and geochemical data are emerging and expanding at an extremely rapid pace. We will examine the status of our knowledge on intrusion-related gold deposits. The one-day work shop invites experienced geologists from industry and academic circles to give lectures on the intrusion-related gold deposits. These may include discussions of defining criteria, essential features, tectono-magmatic setting, igneous environment, structural controls and hydrothermal fluid evolution of this class of deposits. Both genetic and exploration models of this type gold deposits will be discussed. Meanwhile, the relationship of intrusion-related gold deposits to other types of magmatic hydrothermal system will be examined. Moreover, geological maps and rock/ore samples selected from two or three typical intrusion-related gold deposits occurring within the north China craton will present for audiences hand-on examination. (maximum: 50 participants)

No charge for the workshop. abstracts

Abstracts and Proceedings

The Organizing Committee invites the participants to prepare oral presentations and/or posters. Extended abstracts will be reviewed by the Scientific Committee and those accepted for publication will be printed in the Proceedings volume (including a CD-Rom), distributed at the Meeting. The price of the Proceedings Volume is included in the registration fee. The abstract language is English. Abstracts submitted by non-English speaking authors should be edited by native English speakers. The official Publisher of the Proceedings Volume will be the Springer Verlag.

The maximum length of abstract manuscripts is four pages including figures, gray-tone photographs and references. Colored photographs and drawings will not be accepted. For details see the Springer instructions below. Deadline for abstracts submission is January 31, 2005. Abstracts will be accepted before February 28, 2005 and should be returned to the Organizing Committee in the camera-ready form before March 15, 2005 at the address:

Dr. Mao Jingwen

Institute of Mineral Resources

Chinese Academy of Geological Sciences

26 Baiwanzhuang Rd., Beijing 100037, China

Tel: +86 10 68327333 Fax: +86 10 68336358

E-mail: mail@sga2005.com

Abstracts will be printed only if the registration fee is paid together with the submission of camera-ready manuscript and/or before April 30, 2005. For late payments (after April 30, 2005) publication of abstracts cannot be guaranteed.

Posters

Poster session will be held from August 18 to 21, simultaneously with the thematic sessions. The available space for a poster is: vertical length 195 cm and horizontal length 95 cm. Poster authors will be required to be present with the poster at a specified time to be determined.

Important Notice for authors

In light of the suggestion of SGA Council, the abstracts accepted will be dropped out from the Volumes if the author could not register for the 8th SGA meeting before June 30th, 2005.

Field trips*Pre-meeting Field Trips*

1. Mineral deposits of western Inner Mongolia--Bayan Obo supergiant Nb-REE-Fe deposit and Wulashan lode gold deposit, Inner Mongolian Autonomous Region, China

Located 130 km north of Baotou City, the second largest city in Inner Mongolian, Bayan Obo is the largest Nb-REE-Fe deposit in the world, and contains 75% of the total REE reserve of the world. The deposit occurs within Middle Proterozoic volcano-sedimentary sequences and shows an intimate spatial relationship with Paleozoic alkaline igneous rocks. The unique geological and geochemical features of the deposit have attracted great attention from the international economic geological community, and debate concerning ore genesis of the unique deposit is ongoing. In addition, Paleozoic alkalic-magmatic gold occurrences are well developed in the Baotou-Bayan Obo region. Among these gold deposits, the 50 t Au Wulashan deposit is the largest. The deposit, located 25 km NW of Baotou City, consists of a series of gold-bearing quartz-K feldspar veins cutting Archean metamorphic rocks near Paleozoic igneous rocks. Participants on the field trip will tour the Bayan Obo and Wulashan deposits and examine the local geology, sample host rocks and ores, and discuss ideas of ore genesis.

Leaders: Feng-Jun Nie (Institute of Mineral Resources, CAGS), and Zhang Hong (Inner Mongolian Geological Survey)

Dates: 11-16 Aug.

Max./Min. number of participants: 36/20

Cost (US\$): 500

2. Giant orogenic gold deposits and related granitoids in the eastern Shandong Province, China

Shandong Province is China's most significant gold province with at least 30 Moz of past production and defined reserves, and great remaining resource potential. It is the world's most important granitoid-hosted lode gold province. The Yanshanian (ca. 125-120 Ma) veins and disseminated ores are predominantly hosted by the margins of massive Mesozoic granitoids, which intrude Late Archean country rocks. Our visit will be to four of the most important deposits in the province--Linglong, Jiaojia, Sanshandao and Cangshang, each with at least 2-3

Moz Au and with Cangshang being the largest open pit gold mine in China. The metamorphic country rocks, ore-hosting granitoids, and major tectonic features of the region will also be visited.

Leader: Yi-Tian Wang (Institute of Mineral Resources, CAGS)

Time: 11-15 Aug.

Max./Min. number of participants: 25/15

Full cost (US\$): 575

3. Cenozoic metallogeny of Tibet, China: the Gangdese Cu-Mo and Au metallogenic belt

The Gangdese copper belt occurs in the Gangdese magmatic arc along the northern side of the Yaluzangbo suture. Five large copper deposits (Cu reserves ≥ 0.5 million tons) and several medium to smaller copper deposits have been discovered in this newly defined belt during the last few years. The ore-bearing porphyries have an adakite affinity and intrusion ages range from 18 Ma to 14 Ma. The copper-dominant polymetallic mineralization occurred during the final stages of this magmatic episode. The trip will visit three important deposits: Jiama Cu porphyry-polymetallic skarn deposit, Tinggong porphyry Cu-Mo deposit, and Xiongcu Cu-Au deposit.

Leader: Xiaoming Qu (Institute of Mineral Resources, CAGS)

Time: 12-16 Aug.

Max./Min. number of participants: 15/10

Full cost (US\$): 1300

4. Copper and Gold Deposits of Mongolia (SEG-IGOD field trip)

The giant mid Palaeozoic Oyu Tolgoi (Turquoise Hill) porphyry gold and copper system is located in the south Gobi region of Mongolia. Mineralisation outcrops at Central and South Oyu whereas the gold-rich copper zone at Southwest Oyu and the high grade copper-gold being explored at the Hugo zone in the north are blind discoveries. The newly discovered deeply buried porphyry system at Hugo North is one of four cogenetic copper and gold porphyries delineated along a six kilometer northeast trending structural corridor. The Erdenetiin Ovoo (Erdenet mine) is the largest porphyry copper-molybdenum deposit in Mongolia (1.78 Gt @ 0.62% Cu, 0.025% Mo). Multiple intrusions of diorite to granite porphyries control multi-stage mineralization. The oxide zone overlies a 30 to 300 m thick supergene enrichment blanket where secondary chalcocite replaces hypogene chalcopyrite and bornite-covellite assemblages in stockworks and sheeted veins. The Boroo gold deposit, 10.3 Mt of ore averaging 3.52 g/t gold, is largely granite hosted with lesser portions hosted by sheeted quartz veins in a deformed meta-turbidite sequence, and is classified as a low silica Au-As sulfide system, probably intrusion-related. Trip will start and end in Ulaanbaatar

Aug 14th: 8am charter flight to Oyu Tolgoi and technical presentation, lunch;

visit to key outcrops and drill core; 5pm return to Ulaanbaatar and dinner

Aug 15th: 7am departure by bus to Erdenet with packed lunch. 2pm technical presentation and visit to open pit. Overnight at hotel at Erdenet.

Aug 16th: 8am drive to Boroo and technical presentation followed by lunch. Afternoon visit to open pit and return to Ulaanbaatar.

Leaders: Doug Kirwin (Ivanhoe Mines), Reimar Seltmann (NHM CERCAMS), Ochir Gerel (Mongolian University of Science and Technology, Ulaanbaatar)

Time: 13/14-16 Aug. (to arrive Ulaanbaatar by 13th Aug.; departure 17th Aug.)

Max./Min. number of participants: 18/10

Full cost (US\$): 900

(including reference guidebook publication and air & vehicle charters from/to Ulaanbaatar. Note this does not include hotel in Ulaanbaatar or airfares from and to Beijing. Assistance with visas and hotel bookings will be provided).

5. Active and extinct hydrothermal systems of the North Island, New Zealand (4 days)

Visits will be made to geothermal systems in the Taupo Volcanic Zone and several low sulphidation epithermal gold-silver deposits in the Coromandel region to illustrate the hydrology, fluid chemistry, alteration and mineralisation of subaerial epithermal systems. Highlights include Champagne Pool at Waiotapu where gold-silver precipitates are actively forming, the Waihi gold mine, and spectacular scenery of lakes and recently active volcanoes. Trip will start and end in Auckland.

Leader: Tony Christie (Institute of Geological and Nuclear Sciences, NZ)

Time: 11-16 Aug.

Max/Min number of participants: 24/14

Full cost (US\$): 1000

Post-meeting Field Trips

6. Porphyry-skarn-stratabound Cu-Au-Mo deposits of the Middle and Lower Yangtze River region, China: Xinqiao, Dongguashan, Shizishan, Anqing, Chenmenshan, and Wushan deposits

The Middle-Lower Yangtze River metallogenic belt runs through the provinces of Hubei, Jiangxi, Anhui and Jiangsu in eastern China, and consists of more than 200 economic metal deposits. These include the copper deposits of Tieshan, Chengchao, Tonglushan, and Tongshankou in the Daye area; Chengmenshan, Wushan, and Yangjishan in the Jiurui area; Tongguanshan, Shizishan (Dongguashan), Fenghuangqiao, and Xinqiao in the Tongling area; and the iron deposits in the Ningwu-Luzong area. The mineralization is intimately related to the Yanshanian magmatism, with many large and Cu-Au porphyry and skarn deposits, as well as less significant stratabound ores. This metallogenic belt is the most important porphyry-skarn province in China, and has been the focus of numerous studies by economic geologists from both China and overseas. A tour of the beautiful Lushan Mountain scenery will also be included during the trip.

Leader: Taofa Zhou (Hefei University of Technology)

Time: 23-28 Aug.

Max./Min. number of participants: 60/15

Full cost (US\$): 650

7. Intrusion-related gold deposits of the northern margin of the North China craton, Hebei Province, China

The Dongping, Hougou, and Huangtuliang gold deposits, located about 250 km NW of Beijing, are important lode gold deposits that have a strong spatial relationship to Paleozoic alkaline intrusive bodies intruded along the northern craton margin. In addition to these deposits, the nearby Xiaoyingpan lode gold deposit will also be visited, which in contrast is hosted by medium to high grade Precambrian metamorphic rocks of the North China craton. These deposits are dominated by continuous and thick quartz veins, and also contain high-grade ores disseminated in strongly K-altered wall rocks. Spectacular views of Yanshan Mountain, the Great Wall of Badaling, and the Xuanhua Ancient Clock Tower, as well as a stop at the hot springs in Chicheng County, will make the trip both informative and enjoyable.

Leader: Sihong Jiang (Institute of Mineral Resources, CAGS)

Time: 22-25 Aug.

Max./Min. number of participants: 30/10

Full cost (US\$): 375 (or \$425 for single room)

8. Giant mineral deposits of central China—the Daijiazhuang Pb-Zn sedex deposit, Jinchuan mafic-ultramafic rock-related Cu-Ni sulfide deposits (Gansu Province), and the Baguamiao and Jianchaling lode gold deposits (Shanxi Province)

We will fly to Xi'an and visit four of China's giant mineral deposits. These will include: 1) the Changba Pb-Zn deposit occurs in folded marine clastic and carbonate rocks of the western Qinling; 2) the superlarge Jinchuan Cu-Ni magmatic sulfide deposit, mainly hosted by medium- to coarse-grained Neoproterozoic lherzolite, occurring within the rifted southwestern margin of the North China craton; 3) the Mesozoic Baguamiao orogenic gold deposit that is hosted by late Paleozoic marine clastic rocks of the western part of the Qinling tectonic belt; and 4) the Mesozoic Jianchaling gold deposit, of controversial origin (Carlin-like vs orogenic), which occurs along a dolomite-ultramafic contact within the southern edge of the western Qinling belt. Local travel in a modern, air-conditioned bus will allow time for viewing the magnificent mountain scenery, as well as the Terracotta Warriors museum in Xi'an.

Leaders: Wenyuan Li (Institute of Geology and Mineral Resources, China Geological Survey) and Ruiting Wang (Northwest Bureau of Nonferrous Metal Geology)

Time: 23-29 Aug.

Max./Min. number of participants: 30/15

Full cost (US\$): 1300

9. Cambrian black-shale hosted Ni-Mo-PGE, barite and phosphorous deposits, Guizhou Province, China

The southern margin of the Yangtze massif in Guizhou Province is an important region for mineral resources in China, where three deposits will be visited during this trip. These include: 1) the large Lower Cambrian Huangjiawan Ni-Mo-PGE deposit in Zunyi area, 2) the super-large Neoproterozoic Wengfu phosphorous deposit in Weng'an area, and 3) the world-class Lower Cambrian Dahebian barite deposit in Tianzhu area. Stops will also be made to examine the country rocks, fault-controlled basins, and related sedimentary environments in Neoproterozoic strata.

Leaders: Ruizhong Hu, Changyan Wang (Institute of Geochemistry, CAS)

Time: 22-26 Aug.

Max./Min. number of participants: 30/20

Full cost (US\$): 650

10. Investigation of the genesis of salt lake deposits in Tibet, China

Many lakes appear as gems that dot the large mysterious Tibetan Plateau. The lakes in the eastern part of Tibet have evolved from the "Qiangtang East lakes". They are characterized by turquoise blue water, are in an area with magnificent views of the nearby mountains, and there are numerous levels of lakes and high-stand lake sediments. Large magnesite and boron deposits, and smaller potash and mirabilite deposits occur in these lakes. In addition, attendees may wish to visit Potala Palace, Jokhang Temple, etc., in Lhasa, and other famous historic sites. Much will be learned about the history and status quo of Tibetan Buddhism, one will feel the Tibetan ethnic life and culture, and enjoy the beautiful prairie and unique natural scenes.

Leaders: Yuanyi Zhao, Fanjing Kong (Institute of Mineral Resources, CAGS)

Time: 22-28 Aug.

Max./Min. number of participants: 20/10

Full cost (US\$): 1650

11. World-class Toyoha polymetallic deposits, Hokkaido, Japan (5 days) CANCELLED DUE TO CLOSURE OF TOYOHA MINE AND LOW NUMBER OF PARTICIPANTS!!!

This trip will visit the polymetallic veins at Toyoha, which is the biggest indium resource in the world, as well as the nearby Koryu epithermal Au-Ag deposit, Minami-Shiraoi (Barite) and Kunitomi Kuroko deposits, the Noboribetsu spa and hydrothermal system, the Kokko Tertiary manganese nodule deposit, and the Otaru-Akaiwa acid sulfate auriferous alteration zone. The trip will also include visits to the active volcanoes of Usu and Showa-Shinzan that have recently erupted. Trip will start and end at Tokyo Narita airport.

Leaders: Hiroharu Matsueda, Shuji Ono (Hokkaido U.)

Time: 22-26 Aug.

Max./Min. number of participants: 15/5

Full cost (US\$): 1200

12. Epithermal gold deposits in southern Kyushu, Japan (4 days)

Visits to the world-class, high-grade Hishikari quartz-adularia type, low-sulfidation epithermal Au-Ag vein deposit, Nansatsu-type high sulfidation Au deposit, surface thermal manifestation of the Yamagawa geothermal field, and the active Sakurajima volcano. Enjoy hot springs and spa during the trip as well. (Trip will start and end in Fukuoka—there are direct daily flights from Beijing)

Leaders: Koichiro Watanabe, Akira Imai (Kyushu U.), Sachihiko Taguchi (Fukuoka U.)

Time: 22-26 Aug.

Max./Min. number of participants: 15/5

Full cost (US\$): 600

13. Miocene Kuroko- and vein-type deposits, and active geothermal area, northern Honshu, Japan (4 days)

Visits will be made to Kosaka-Motoyama Kuroko VMS deposits and the Osarizawa Cu-vein deposit to examine the Kuroko geology, bimodal volcanism, alteration, and mineralization. The Kosaka-Motoyama system is the first discovered Kuroko deposit. The debates on seafloor hydrothermal mineralization started from this open-pit. This trip will also visit the active Osorezan Au-Ag epithermal systems and the Hachimantai geothermal plant, with some scenic stops at caldera lakes and active volcanoes in northern Honshu. Trip will start and end at Tokyo Narita airport.

Leaders: Toshio Mizuta, Daizo Ishiyama and Yohei Ishikawa (Akita U.)

Time: 22-26 Aug.

Max./Min. number of participants: 15/5

Full cost (US\$): 1100

14. The Angouran nonsulfide zinc deposit, northwestern Iran, with an overview of the regional geothermal system (5 days)

Leader: Farahnaz Daliran

Time: 23-27 Aug.

Max./Min. number of participants: 12/7

Full cost (US\$): 1250

NEW fieldtrip. Large Sediment-hosted Dongchuan Copper and Gold Deposits and Lanping (Jinding) Lead-zinc Deposit in Yunnan (8 days)

This trip will examine two large sediment-hosted ore deposits in China. The large Proterozoic sediment-host Dongchuan copper deposit is located in north Yunnan. It contains over 4.1 million tonnes of contained copper at a grade of 0.83% copper, and has been mined for over 50 years. Recent exploration indicates that the area is also a huge orogenic gold system. The new discovery of the Boka gold deposit northeast of

Dongchuan, which has a potential of >10 Moz gold, is hosted within the same Proterozoic meta-sedimentary sequence along the same structural zone. The large Tertiary sandstone-hosted Lanping (also known as Jinding) Pb-Zn deposit is located in northwest Yunnan. It contains over 15.4 Mmt of contained lead and zinc with a grade of 7.0% Pb+Zn, 5.8g/t Ag and 0.08% Cd in the sulfide ores.

Leaders: Sicai Zhu (mark_anr@yahoo.com.cn) (Asia Now Resources Limited), Wenchang Li (Yunnan Geological Survey)

Time: 22nd -29th Aug. (to arrive Kunming by 22nd Aug.; departure 29th Aug.)

Max./Min. number of participants: 15/8

Full cost (US\$): 850 (including reference guidebook publication, local hotels, meals and local air flights within Yunnan & vehicle charters from/to Kunming. Note this does not include airfares from and to Beijing and hotel in Kunming. Assistance will be provided for hotel reservation).

Youth Program and SGA awards

Awards for the Best Student Oral and Poster Presentations

Experience shows that the technical content of the program and the quality of the presentations in any conference improve with the increase of student participation. The SGA Council is committed to having a large number of students fully integrated into the meeting and well represented in the oral and the poster sessions. One of the most important missions of the Student Advisory Committee is to ensure that an adequate number of students will be giving papers. Students are strongly encouraged to submit extended abstracts. The chair and co-chairpersons of each session will be particularly sensitive to student participation in the meeting. Awards will be given to the best oral and poster presentations senior-authored by students.

The quality of the student abstracts is an important factor in the selection process for best presentations. The chair of each session will suggest the best abstracts and the Conference Committee (consists of Student Advisory Committee, Student Representative on SGA, MD editors and Representative of the Scientific Program Committee) will select the best oral and poster presentations given during the meeting. The criteria of selection will be based on: scientific merit, innovation and international significance, quality and presentation format. The best presentation will be announced and awarded at conference dinner. The award will consist of a certificate and a check for 200 US\$.

Several field trips to some of the world's largest ore deposits will be offered. Students are invited to attend the field trips and a limited number of free student registrations in selected field trips will be offered.

Student Grants

SGA recognizes that the costs to attend conferences are particularly acute for students who generally have less access to funding than senior researchers. During the Beijing meeting, students will have available low-cost accommodations in one of several student residences at the

China University of Geosciences. Limited financial support will be available for students. Applications for financial assistance can be directed to the Student Advisory Committee either in written form or electronically at a conference website. The application should include personal and professional details (see application form in supplement information).

Only applicants whose abstracts were accepted for the meeting will be considered for financial assistance. Financial assistance will be paid directly at the registration desk during the conference. No advance payments are possible. The decision regarding financial assistance will be announced by Organizing Committee by March 15, 2005.

Student participation in field trips and short courses: Several pre-meeting Short Courses, and numerous pre- and post-meeting Field Trips to some of the world's largest ore deposits will be offered, please see the list of field trips. Students are invited to get involved in these activities.

One free participation for a student on each field trip will be offered by the conference. Interested students should apply to Student Advisory Committee by January 31, 2005. The following information should be addressed in a letter of application: Name, advisor, university, degree and year expected, thesis title, and one paragraph (5 sentences) explaining why they want to attend the trip.

The decision regarding the free field trip attendance will be announced by Organizing Committee by March 15, 2005.

SGA Young Scientists Award

The SGA Young Scientist Award is offered biennially to a young scientist who has contributed significantly to the understanding of mineral deposits. The award consists of a citation, prize money (currently EUR 1500), and travel to the Biennial meeting for the presentation, and is open to all persons working in economic geology. The SGA Young Scientist Award is awarded for research in economic geology published before the author's 35th birthday. The candidates must be less than 37 years of age on January 1 of the year in which the award is presented. Any Society member in good standing may nominate candidates for the award.

How to Nominate a Candidate: A brief biographical summary should be submitted by the person making the nomination to the SGA Executive Secretary by January 1, 2005. For more details see <http://www.e-sga.org/sga.html>.

The Best Paper Award

The Mineralium Deposita Best Paper Award is granted for the best paper published in the Journal in the two years preceding the BIENNIAL SGA MEETINGS. For more details see <http://www.e-sga.org/sga.html>.

Hotel accommodation

1. Beijing New Century Hotel, 5 Star

For registration and booking forms as well as payment details visit the conference web-site:

www.sga2005.com

Contact address

Dr. Jingwen Mao, Institute of Mineral Resources, Chinese Academy of Geological Sciences, 26 Baiwanzhuang Rd., Beijing 100037, China
Tel: +86 10 68327333 Fax: +86 10 68336358; E-mail: jingwenmao@263.net / mail@sga2005.com

Deluxe Room: US\$ 90 Business Room: US\$ 100
 Executive Room: US\$ 130 Deluxe Suite: US\$ 150
 Room includes breakfast, 2 bottles of mineral water are provided each day/room free of charge. Guests in Business and Executive Room enjoy free ADSL internet service. Fitness, swimming and Sauna services are free for guests

2. Xiyuan Hotel, 5 star
 Standard Room(B): US\$ 60 Standard Room(A): US\$ 65
 Deluxe Room: US\$ 75
 Breakfast to be paid separately: Western breakfast: US\$ 8; Chinese breakfast: US\$ 5 per person

3. Xijiao Hotel, 3 star
 Single Room: US\$ 40 Apartment Room: US\$ 45
 Double Room: US\$ 35 Standard Room : US\$ 50
 Deluxe Room: US\$ 80
 Room bills include Chinese breakfast
 Guests enjoy free ADSL internet service

4. Fangxing Hotel
 Standard Room (A): US\$ 30 Standard Room (B): US\$ 40
 Room bills include breakfast
 Guests enjoy free ADSL internet service

5. Student dormitory (for students only)
 Single Room: US\$ 10 (1 bed) Double Room: USD 16 (2 beds)

Payments

All payments should be made in US\$ by bank transfer or internationally accepted credit cards at the Organizing Committee bank account. Chinese participants can pay in RMB by bank transfer at the Organizing Committee bank account given in website www.sga2005.com

Social Program

An exciting Guest Program has been put together for you to experience the best of Beijing's fascinating culture. You must be registered for the conference to attend all guest activities, which include the Icebreaker cocktail party, a marvelous conference banquet, an evening at the celebrated Beijing Opera, and the opportunity to join us on trips to Beijing's highlights.

Travel in air-conditioned coach with an English-speaking guide.

If the minimum number of 10 participants per tour is not achieved your payment will be refunded.

Day #1: BEIJING HIGHLIGHTS

We start at Tiananmen Square, the largest square in the world, stopping to visit Chairman Mao in his repose. Then on to the Forbidden City, home to China's Ming and Qing Emperors since the early 15th century. Be sure to watch "The Last Emperor" before coming. Afterwards we go to the Lama Temple, Beijing's most colorful temple. Full-day tour. Lunch is included. \$35 USD

Day #2: SHOPPING

Who can resist bargaining in one of the best shopping cities in the world? Finish birthday, holiday and Mother's Day shopping for years to come at the "Pearl Market" (pearls and MUCH more!) and at the Ya Xiu market. Floors and floors of fabulous shoes and purses, stunning cloisonné jewelry and trinkets, magnificent handicrafts. Bring an empty suitcase – or two! Half-day tour. Buy your own lunch as we take a break at Ya Xiu's excellent cafeteria. \$16 USD

Day #3: THE GREAT WALL/THE GREAT WALL AND THE MING TOMBS

How many of the Wonders of the World have you seen? You can climb the fabulous Great Wall of China, the symbol of the country, the only manmade object visible from space. Half-day tour. \$30 USD (add Great Wall 10) Full-day tour includes the Ming Tombs, the mausoleums of the 14th century Ming emperors. Lunch is included in the full day tour. \$45 USD

Day #4: HUTONGS AND THE SUMMER PALACE

The hutongs (classic old neighborhoods) of Beijing are rapidly disappearing to make way for the new Beijing. We visit by rickshaw the charming, ancient alleyways. Then elude the summer heat like royalty did on a boat ride to the Summer Palace, where we stroll the ancient walkways. Full-day tour. Lunch is included. \$35 USD

Specially designed tours for children will also be available, to Ocean Park, the Zoo, The Astronomical Observatory and the Science and Technology Museum.

Additional tours will be available to you to visit other parts of China, perhaps while your significant other is away on a field trip. Grab another "Field Widow" and see:

Hong Kong – This spectacular city outshines Las Vegas with its fabled neon lights. Terrific dining, fun market shopping, a cosmopolitan city of the first rank.

Guilin – Site of the beautiful, classic Chinese photos of misty skies, tree-covered limestone cliffs, and a lazy, winding river. Visit stunning terraced rice paddies – and feel like the Empress if you choose to be carried uphill in a sedan chair. Also some of the best shopping in China.

Xi'an – Home of the remarkable 2200-year-old terra cotta soldiers, only discovered in 1974. Some call it the Eighth Wonder of the World! For information on kids' tours and China travel, write to: susanleach@aol.com

Exhibition

Exhibits from scientific publishing houses, mining companies, scientific equipment providers, university and government organization space will be present. Some local government officials in the provinces and regions will be invited to introduce the local policies for mineral resource development and investment.

Fee: \$500 per standard exhibition space:

Standard exhibition space is 3X3M2

Lighting/electrical connection: \$200

Includes one complimentary registration to conference

Contacts:

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