

The Institute of Geology, Chinese Academy of Geological Sciences (CAGS), formerly as the Central Geological Survey, is a national public scientific research institution that is part of the National Science and Technology Innovation System and provides technical support for the national public geological survey. It is a subsidiary of the China Geological Survey (CGS), Ministry of Natural Resources of the People's Republic of China (MNR), and is engaged mainly in national fundamental, public, strategic and frontier geoscientific research and



basic geological surveying, making it one of the important bases for solid earth scientific research, technological applications, and the training of high-level personnel in China. The institute is currently led by Academician Hou Zengqian, Chief Director (legal representative); Mr. He Changhong, Secretary of the Party Committee; Mr. Wang Tao and Ms. Wang Yucui, Deputy Directors and Mr. Zhang Haiquan, Discipline Inspection Secretary.

【 Organizational framework 】

Administrative Departments

General Office
Finance Department
Department of Science and Technology
Department of Personnel and Education
Party Committee Office
Department of Discipline Inspection and Supervision
Service and Security Department
Department of Experimental Administration

Technology Platform

Beijing SHRIMP Center of the National Science and Technology Resource Sharing Service Platform
Key Laboratory of Deep Geodynamics, Ministry of Natural Resources
Key Laboratory of Isotope Geology, Ministry of Natural Resources
Key Laboratory of Stratigraphy and Paleontology, Ministry of Natural Resources
Key Laboratory of Deep Exploration and Geodynamics, Ministry of Natural Resources

Professional Research Divisions

Division of Regional Geology and Mapping
Division of Tectonics
Division of Stratigraphy and Paleontology
Division of Metamorphic Rocks and Precambrian Geology
Division of Igneous Rocks
Laboratory of Continental Dynamics
Laboratory of Isotope Geology
Lithosphere Research Center (LRC)
Beijing SHRIMP Center
Mineral and Energy Resources Center
Three-dimensional Geological Survey and Research Center

Technical Support Organizations

National Geological Mapping and Research Center, China Geological Survey
Collaborative Research Center for Stratigraphy and Paleontology, China Geological Survey
Three-dimensional Geological Survey Center, China Geological Survey

Publications

ACTA PETROLOGICA ET MINERALOGICA

Affiliated Academic Organizations

China Commission for International Continental Scientific Drilling
Commission for Regional Geology and Mineralization, Geological Society of China



【 Research fields 】

- ▲ Regional geology, mapping and database construction
- ▲ Regional and global tectonics
- ▲ Origin and evolution of life, paleontology and stratigraphy
- ▲ Sedimentary basins and evolution of paleogeography and paleoenvironments
- ▲ Precambrian geology and early crustal evolution
- ▲ Cenozoic geology and modern geological and ecological environments
- ▲ Ultrahigh pressure metamorphism and metamorphic

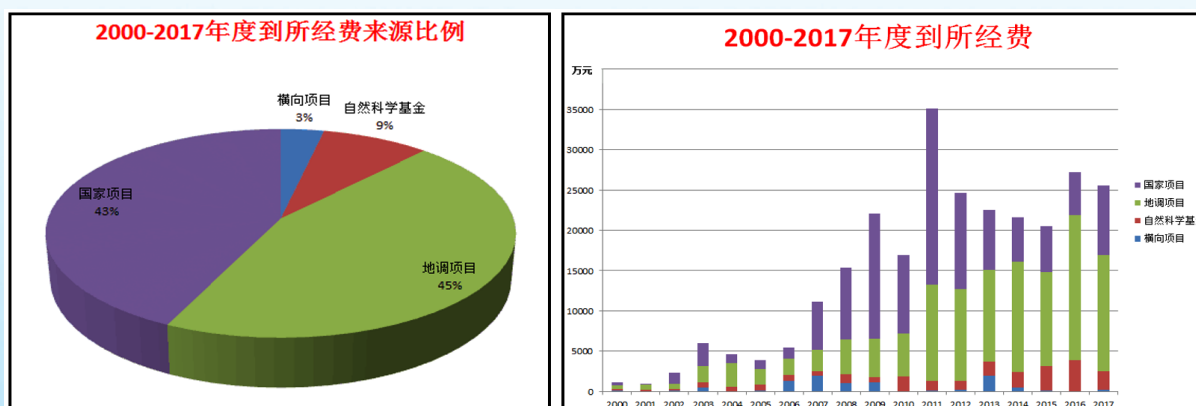
belts

- ▲ Petrology, mineralogy and mineral deposits
- ▲ Continental dynamics and mantle dynamics
- ▲ Geological setting of mineralization and regional mineralization
- ▲ Three-dimensional geological surveying
- ▲ Deep geophysical probing and lithospheric structures
- ▲ Geological theory, method system and applications of Isotopes

【 Scientific research program 】

The Institute of Geology focuses on national goals and the international forefront of geoscience. During 2000-2017, the institute undertook the following projects: National Key Research and Development Projects(2 projects),973 National Basic Research Program (1 project), Special Project for Major Instrument of Ministry of Science and Technology (1 project), 863 National Subject Project (1 project), Special Project for Fundamental Research Work of Ministry of Science and Technology (2 projects), Subject for Science and Technology Support of Ministry of Science and Technology (2 projects), Special Project for Wenchuan of Ministry of Science and Technology (1 project), Major Research Program of the National Natural Science Foundation (2 projects), Key Projects (19 projects), international cooperative Projects (10 projects), National Science Fund for Distinguished Young Scholars (3 projects) and Outstanding Young Scholars (2 projects), the General and Youth Fund (more than 150 projects), Special Projects for Scientific Research for the Public Welfare Industry and Deep Exploration (18 projects), International Geoscience and Geoparks Programme (IGCP, 3 projects), and Projects of the China Geological Survey (>280 projects), highlighting the important position of the Institute of Geology among national scientific agencies in terms of technical innovation.

The scientific research projects and funding sources of the Institute of Geology are predominantly from the Ministry of Science and Technology, the National Natural Science Foundation of China, the China Geological Survey, and local governments and enterprises, and its total funding is about 2.5 billion RMB. For the sources of funding, please see the figures below.



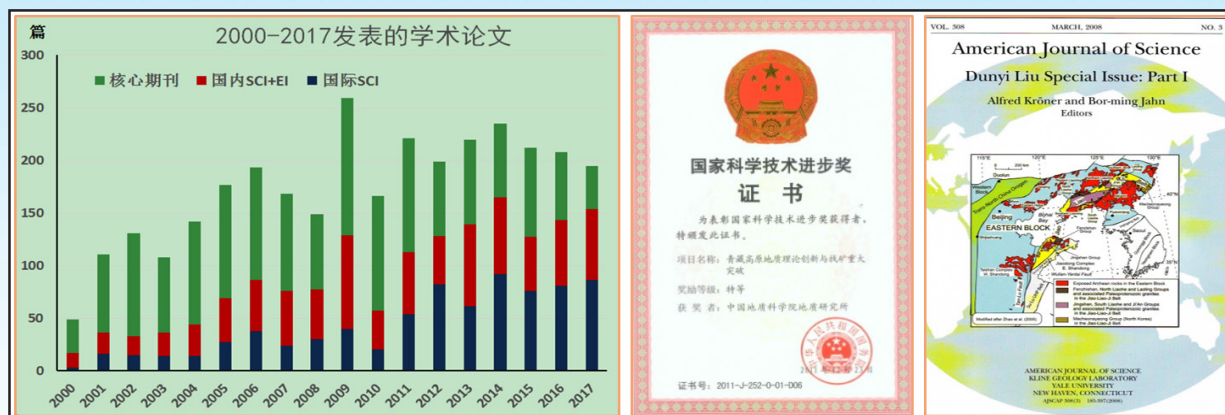
【 Scientific achievements 】

During its 60-year history of research, the Institute of Geology has made great achievements in scientific research and basic geological surveying, achieving a high academic status both nationally and internationally. It has won 2



first prizes, 5 second prizes and 3 third prizes at the National Natural Science Awards. Since 1995, it has achieved a number of high-level landmark results with 13 first prizes and 24 second prizes for Scientific and Technological Achievements of Ministry of Natural Resources.

It has published 3,200 papers from 2000 to 2017, 800 of which were international SCI papers, 850 were domestic SCI + EI papers, and more than 1500 papers were published in core journals. 67 monographs have been published and 32 patents have been awarded.



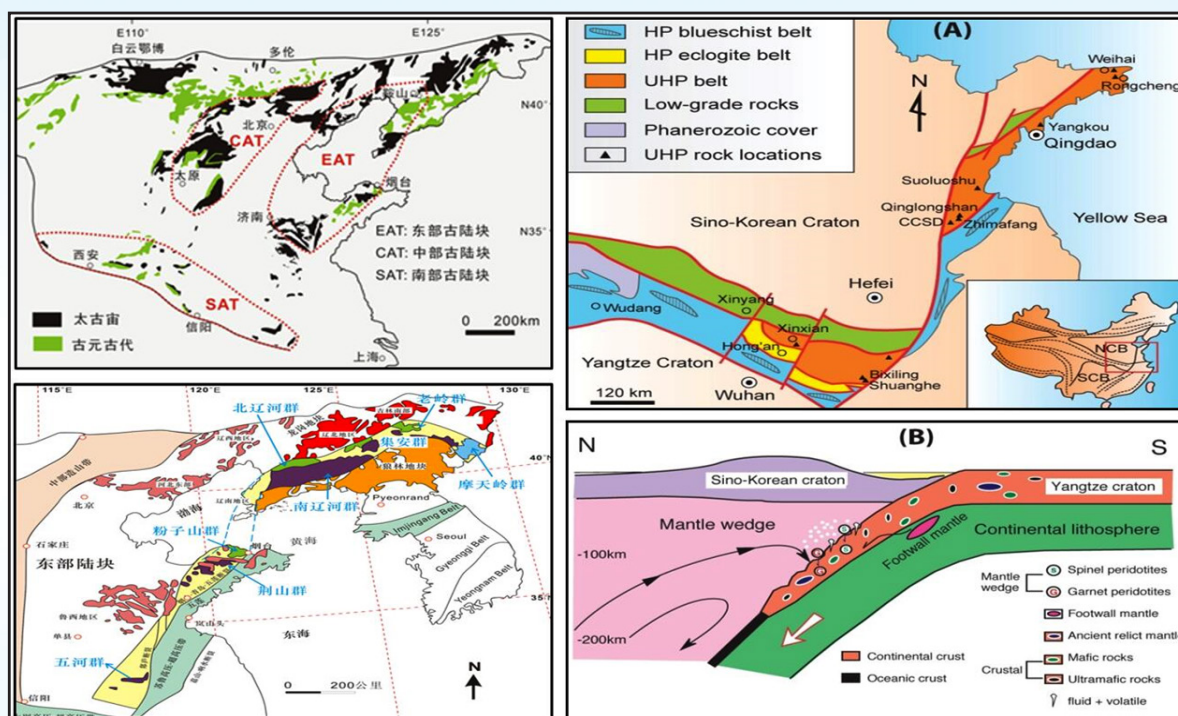
Stratigraphic system: study from difficult stratum to life evolution

The discovery of *Shenzhouaptor sinensis* in western Liaoning Province supports the "land run" theory of the origin of bird. The discovery of the oldest placental mammals yet found has extended the appearance of the placental mammals back in time by about 50,000,000 years ago. The first discovery of the world's most primitive bird fossils, of the magnificent Jinfeng bird, marks significant progress in the research into the origin of birds. 14 papers have been published in top international journals including *Nature* and *Science*, greatly enhancing the international status of paleontology research in China.



Precambrian and metamorphic rocks: from early evolution of the Earth to ultra-high pressure metamorphism

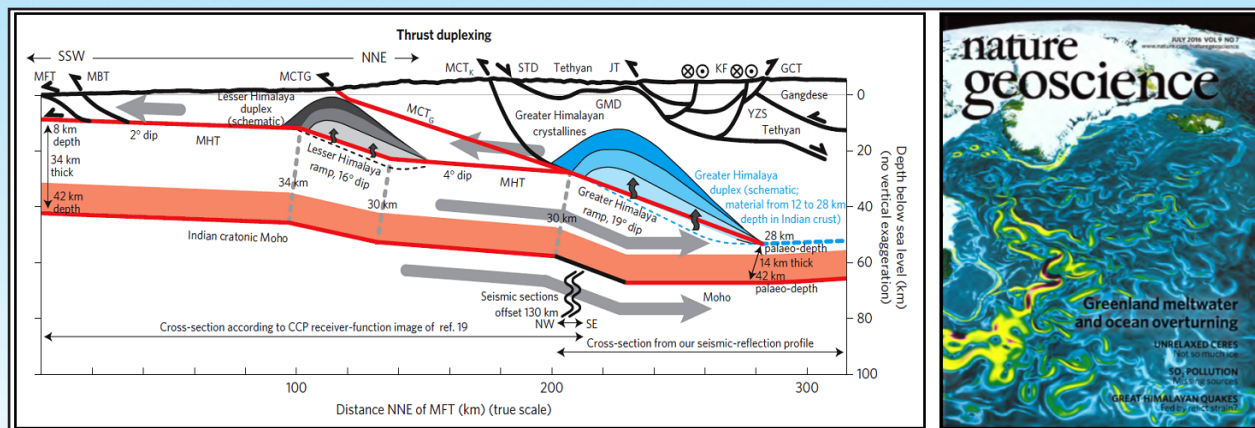
The spatial distribution of the ancient continental nucleus in the North China Craton has been determined. Three ancient continental blocks older than 2.6 Ga have been defined for the first time. Paleoproterozoic tectonic belts (khondalite series) and high pressure granulite have been identified in the North China Craton and their genetic mechanisms and metamorphic evolution trajectories have been confirmed. The early Precambrian major metamorphic-magmatic-anatexis events in the North China Craton have been established. This has led to the theoretical innovations and the development of a model of the formation and evolution of the ancient crust and research into supercontinent polymerization. Study of the deep subduction and ultrahigh pressure metamorphism in the Dabie-Sulu ultrahigh pressure metamorphic belt has led to continuous innovation and improvement of the theories of ultrahigh-pressure metamorphism and associated research methods worldwide.



Achievements in the exploration of the three-dimensional lithospheric structure on the Chinese mainland

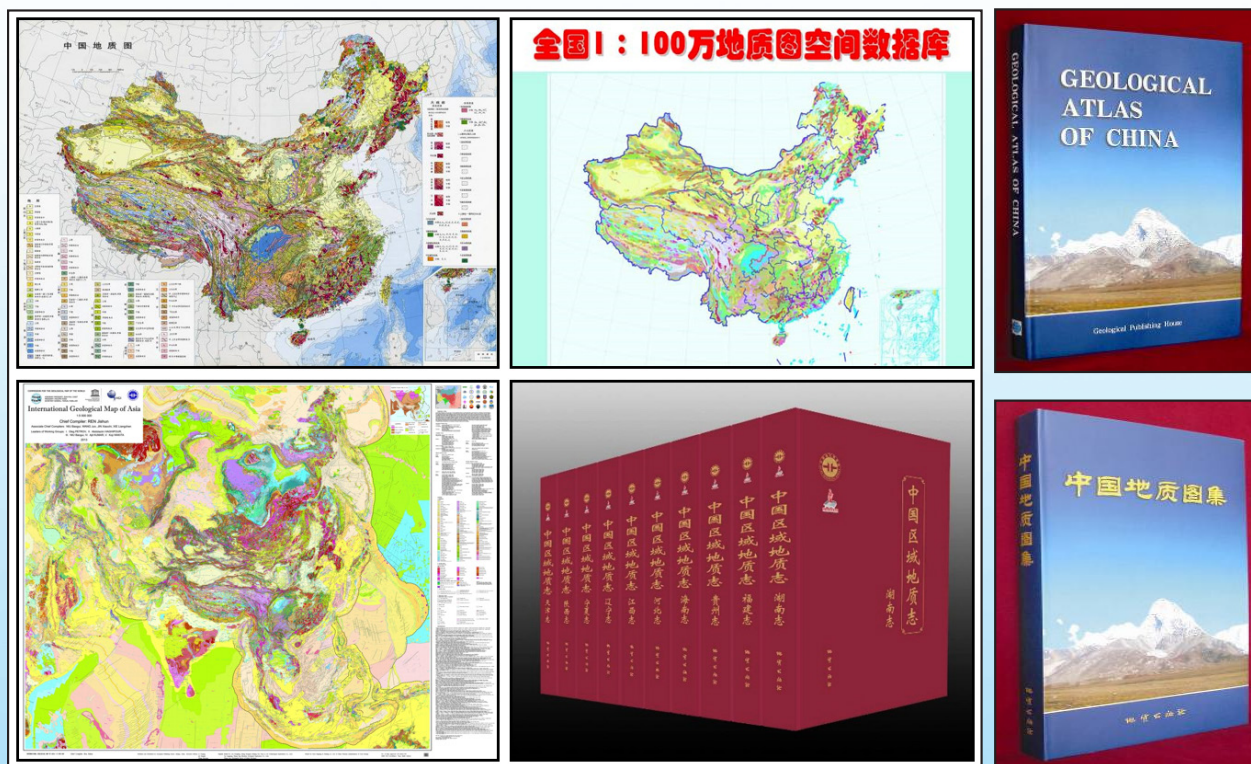
We have conducted experimental and exploratory research into lithospheric structures, successfully establishing a technical system suitable for the complex structural exploration of the Chinese mainland, especially the world-leading acquisition of penetration data and the processing technology used on the super-thick crust of the Qinghai-Tibet Plateau. Series of important scientific discoveries have been made in the fields of lithospheric structural exploration and the geodynamics of orogenic belts and basin rock junctional zones, which have predominantly been characterized with the pioneering technique of comprehensive geophysical exploration (based on artificial and natural source seismology) with deep seismic reflection profiles. For instance, the Indian continental crust did not strongly indent into the Gangdise, but was exhumed along the main Himalayan thrust fault, leading to uplift of the Himalayan. A geodetic section database and the first database for three-dimensional structures of the lithosphere have been established. Over the years, the institute has always been active at the international forefront of research, with high-level achievements in the exploration of three-dimensional structures and the geodynamics of the Chinese

mainland lithosphere. Researcher Gao Rui, the academic leader, was elected an academician of the Chinese Academy of Sciences in 2015.



Deepening the geoscience research by publishing a series of basic geological maps, thus enhancing academic exchanges at home and abroad & promoting the integration and popularization of achievements

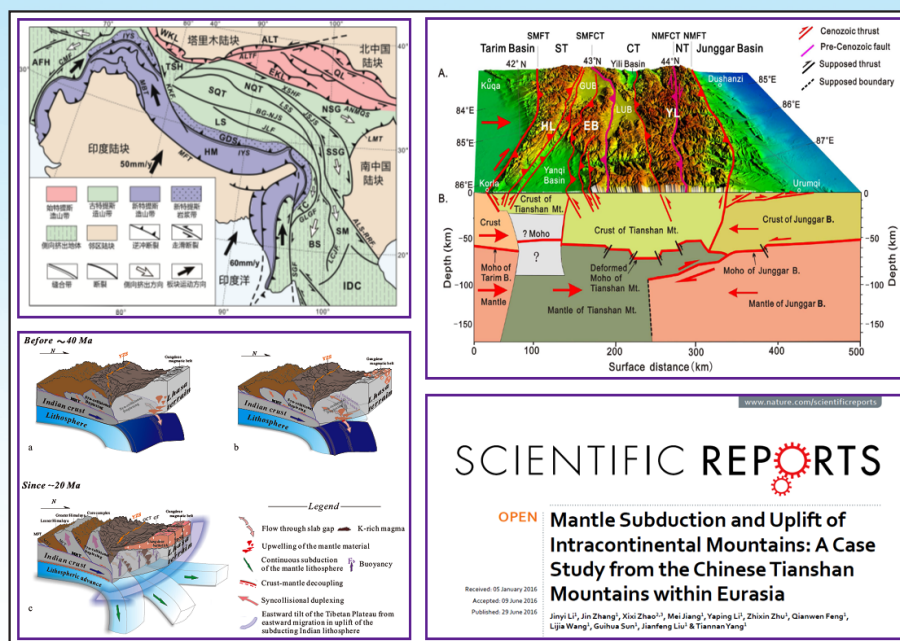
Dozens of global, intercontinental and national maps, including the national 1:1 million (M) geological map spatial database, the 1:4 M metallogenic regularity prediction map of China, the 1:25 M metallogenic map of large-scale and super large-scale mineral deposits throughout the world, four professional maps of the 1:2.5 M Geological Atlas of Central and Adjacent Areas of Asia, the 1:2.5 M Geological Atlas of China, and the 1:5 M International Asian Geological Map (IGMA5000), have been compiled, and an international and domestic scientific planning platform has been established for organizing intercontinental maps and compiling a new generation of regional geological chronicles. We have thus taken the lead in realizing the integration of geological investigations and scientific research.



Institute of Geology, Chinese Academy of Geological Sciences (CAGS)

From plate tectonics to continental dynamics, enabling the development of geoscience theory

Using the Qinghai-Tibet Plateau collision orogenic belt, Central Asia and the Central Orogenic Belt as field laboratories, we have made important progress in the study of scientific drilling, ultrahigh pressure metamorphism, mantle rocks and China's continental tectonics, using multidisciplinary methods, including deep exploration, digital simulation and four-dimensional comprehensive analysis. These developments have had a great international impact.



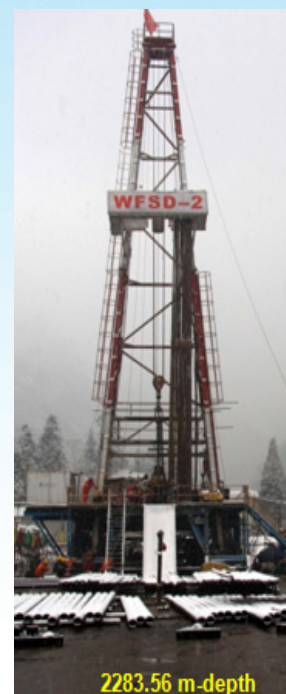
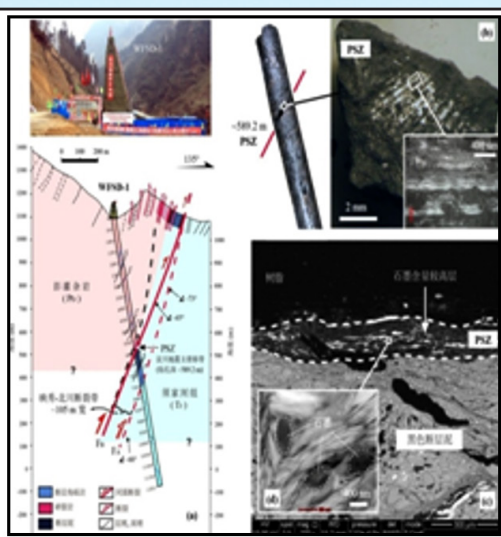
Serving national targets: using the study of metallogenic law and theory to realize and support breakthrough on mineral exploration

A metallogenic theory of continental margin accretion and continental collision has been established, which explains the regional metallogenic patterns of the Qinghai Tibet Plateau, allowing prospecting breakthroughs, and winning the Special Prize for the National Scientific and Technological Progress. The discovery of anomalous mineral groups such as chromite and diamond, in the deep mantle has revealed the deep mantle circulation of subduction slices, providing a new window into deep mantle materials and mantle circulation. In 2017, the academic leaders, Hou Zengqian and Yang Jingsui, were elected academicians of the Chinese Academy of Sciences.



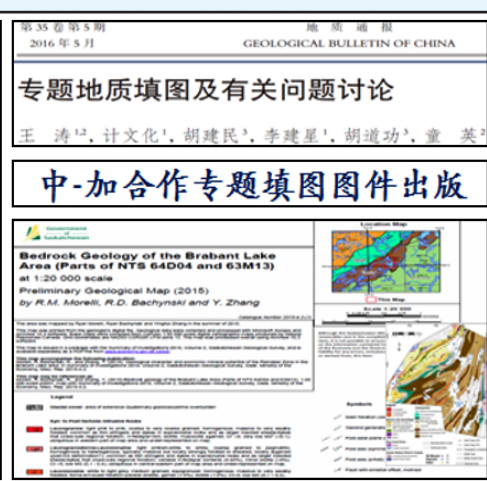
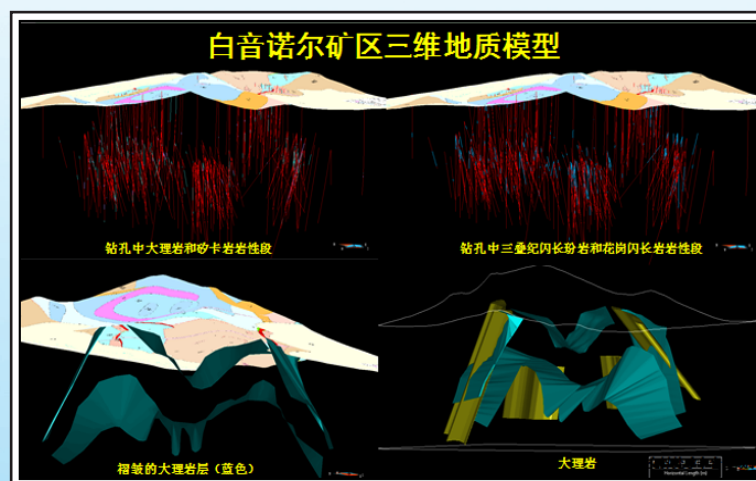
Disaster prevention and mitigation: from to the study of active structures seismogenic mechanisms, making a substantial contribution

The Wenchuan Earthquake Fault Scientific Drilling (WFSD) project is a National Special Project for Science and Technology (2008-2014), and involves the fastest scientific drilling in the world in response to large earthquakes. WFSD can determine the cause of an earthquake energy state and the fracture evolution process, stress environments and huge earthquake ruptures. Breakthroughs have also been made in understanding the seismogenic mechanism of the Wenchuan earthquake.



Geological survey: from traditional to modern, led by science and technology, with remarkable achievements driven by the combination of geological surveys and scientific research

The institute has undertaken the important task of a pilot mapping project of the China Geological Survey during the 13th Five-Year Plan period, i.e. the pilot thematic mapping project (on medium and large scales) and established a mapping method system. After a pilot project on 3D mapping, the workflow and technical system of the 3D geological survey were established, together with a 3D geological modelling software platform, the Mira SKUA-GoCAD Mining Suite, as its core.



【 Scientific and technological talents 】

Since its establishment, the Institute of Geology has attracted top scientific and technological talent, including 20 academicians of the Chinese Academy of Sciences, including Huang Jiqing, Xie Jiarong, Sun Yunzhu, Cheng Yuqi, Li Chunyu, etc. At present, the Institute has 252 staff, including 7 academicians of the Chinese Academy of Sciences and 130 senior researchers.

It has a group of young subject leaders prominent both at home and abroad. Among them, 70 have won many important geoscience prizes in China or gained funding from major national authorities: 3 have won HO LEUNG HO LEE Prizes; 5 have won J. S. LEE Geoscience Prizes; 2 have won the title of J. S. LEE Scholar; 3 have won the title of Huang Jiqing Scholar; 5 are funded as National Distinguished Young Scholars; 2 as National Excellent Young Scholars; 5 as Hundred, Thousand, Ten-Thousand Talents; 4 as National Outstanding Young Experts; and 1 by the China Thousand Talent Program. A group within the institute has been identified as an “Innovative Research Group” by the National Natural Science Foundation of China. By clarifying its mission, accurately defining its functions, and maintaining its innovative advantage, the Institute of Geology has made outstanding achievements in the establishment of a scientific and technological talent team and in geosurveying and geoscience research, and been playing a leading role among the scientific institutes affiliated to the Ministry of Natural Resources of China.

The Institute of Geology has formulated the Scientific Talent Development Plan Outline and a number of plans that comprehensively promote the establishment of talent teams. It has collected funds to develop a series of talent training and employment programs, with a view to attracting and developing talent at home and abroad, both within and outside the Institute. These programs include the Huang Jiqing Scholars Program, Huang Jiqing Youth Recruitment Program, the Young Scholars Overseas Training Program, and the Overseas Visiting Scholars Training Program of the Institute of Geology.



Academician
Huang Jiqing



Academician
Xie Jiarong



Academician
Sun Yunzhu



Academician
Xu Jie



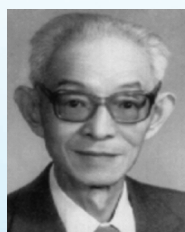
Academician
Cheng Yuqi



Academician
Wang Yuelun



Academician
Wang Hengsheng



Academician
Zhu Xia



Academician
Li Chunyu



Academician
Xu Ren



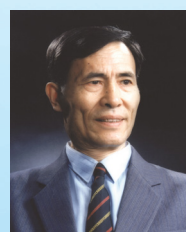
Academician
Guo Wenkui



Academician
Shen Qihan



Academician
Xiao Xuchang



Academician
Li Tingdong



Academician
Ren Jishun





Academician
Xu Zhiqin



Academician
Yang Wencai



Academician
Gao Rui



Academician
Yang Jingsui



Academician
Hou Zengqian

【 National Science and Technology Infrastructure 】

The Institute of Geology has built a platform for geological research and academic exchanges both at home and abroad, with world-class instruments and equipment. The institute houses 1 National Science and Technology Infrastructure, 4 key laboratories of the Ministry of Natural Resources, 2 experimental field observation bases and 3 service centers of the China Geological Survey

Beijing SHRIMP Center

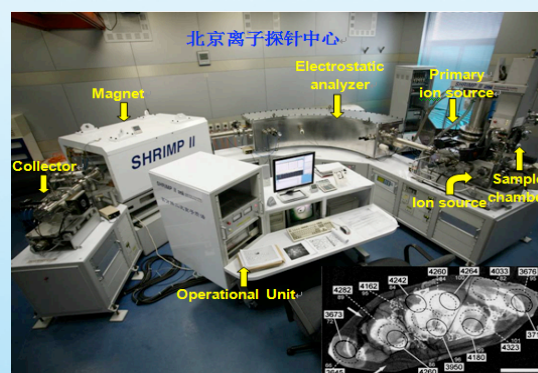
Founded on December 18, 2001, the Beijing SHRIMP Center is a world-class technology platform integrating scientific research, technological innovation, and testing services. In October 2011, the Center was jointly approved by the Ministry of Science and Technology and the Ministry of Finance as one of the first groups of 23 National Science and Technology Infrastructure (National Research Centers). Its core instruments include two Sensitive High Resolution Ion Microprobe (SHRIMP II) instruments. The main research fields of the center include microzone geochronology and cosmochronology, mineral microzone geochemistry, the development of new techniques and methods, and independent research into the development of scientific instruments. The center has redefined the age of the Lunar Imbrian to about 3920 Ma, which enabled the first direct study of the Apollo lunar rock samples, laying a solid foundation for the testing and analysis of samples collected by China's Lunar Exploration Project.



Beijing SHRIMP Center experimental research base at Zhongguancun Life Science Park



Mass spectrometer R&D team of the center



Core instrument of the Beijing SHRIMP Center-SHRIMP II



In 2006, with the support of Ministry of Land and Resources, the center purchased 15 mus (~1 ha) of land at Zhongguancun Life Science Park, northwest of Beijing, for the construction of a new experimental research base. The new base was completed in December 2012, and the center moved into the base in early 2013.

Over the past 16 years since its establishment, the center has adhered to the operational principles of openness, sharing, high efficiency, and the movement towards internationalization. With its operating efficiency and scientific research output placing it among the most advanced research institutions in the world, the center has been praised by the Ministry of Science and Technology as “the Model of Efficiently Serving for the Whole Society among all the National Science and Technology Infrastructures”, and it has been highly commended by its foreign counterparts as “an internationally significant geochronological research platforms and one of the most successfully operated laboratories.” The center enjoys considerable influence in the international geoscience community.



Inspection of the Beijing SHRIMP Center by Li Keqiang, during his tenure as Vice Premier of the State Council

Key Laboratory of Deep Geodynamics, Ministry of Natural Resources



The main research directions of the key Laboratory of Deep Geodynamics are foreground-collision dynamics and mantle dynamics. The main field sites are high-ultrahigh pressure (HP-UHP) metamorphic belts and the Qinghai-Tibet Plateau. The main research subjects are plate convergent boundaries and the composition, tectonics, structure and shallow effects of the deep material within plates, and it serves the national economic and social development needs. Over the past decade, the laboratory has built up three research platforms: the “China Continental Scientific Drilling Project”, “China Central UHP Metamorphic Zone” and “Qinghai-Tibet Plateau”, which have made a series of important achievements in research innovation.

Exploring outer space, the deep earth, and the deep ocean are three great feats in human history. Known as “the telescope that observes the deep earth”, the China Continental Scientific Drilling Program is a large scientific project with epoch-making significance in driving earth science and technological development of related engineering in the 21st century. It is undertaking important basic research that can solve the problems in resource, disaster and environment management. In 2002, it ranked among China's Top Ten Scientific and Technological Institutions, gaining public recognition; in 2004, the China Continental Scientific Drilling Engineering Center won the National Labor Day Certificate. In 2006, drilling of China Continental Scientific Drilling (CCSD) at the depth of 5158m was approved by the Chinese Academy of Sciences and Chinese Academy of Engineering as one of the China Top-Ten Scientific Progress. Wenchuan Earthquake Fault Scientific Drilling (WFSD), which was implemented in 2008, is a scientific drilling program that provides the world's fastest response to earthquakes, and is also the first

scientific drilling program to undertake research into large earthquakes within continental interiors. Many young scientists who have participated in the Chinese Continental Scientific Drilling Program have received various awards.

The study on the central collision belt, orogenic belts, and ultrahigh pressure metamorphism in China has identified two periods of generation of the Giant UHP Metamorphic Belt, which is about 4000 km long, crossing China's central region. In 2004, the belt was relocated on the global UHP Metamorphic Belt.

The Key Laboratory of Deep Geodynamics has a number of analytical and testing instruments for geophysical research on material compositions and microstructures, including an electron microscope, X-ray spectrometer, electron backscatter diffraction (EBSD) instrument, laser Raman spectroscope, cathodoluminescence instrument, X-ray petrofabric instrument, gold plating instrument, mineral processing equipment, and other test instruments, as well as instruments for microzone analysis, such as an electronic probe (under construction).

中国大陆科学钻探工程的实施，是我国地质科技工作的一件大事，对于深化人们对地壳构造及其发展演化规律的认识，促进我国地球科学理论的发展和地球探测技术水平的提高，具有十分重要的意义。中国大陆科学钻探工程是一项集科学与探研于一体的综合性工程，也是多学科、多领域的系统集成。实施这样大的科学工程，必须精心组织、科学管理、大力协同，必须充分发挥广大科技工作者和钻探工人的积极性和创造性，必须弘扬科学、求实、创新、严谨的精神。预祝中国大陆科学钻探工程圆满成功。

温家宝
明勉



Inspection of the Key Laboratory by Hu Jintao, during his time as National Chairman

Key Laboratory of Isotope Geology, Ministry of Natural Resources

The Laboratory houses a multicollector inductively coupled plasma mass spectrometer (NU Plasma, HR, NP11), a solid mass spectrometer (NU TIMS, MAT262), rare gas mass spectrometer (Helix MC, Alphachron TM), and other advanced instruments, a clean chemical laboratory, and laser sampling facility and other auxiliary facilities. It has established analytical methods for a variety of radiogenic isotope systems (Rb-Sr, Sm-Nd, Pb) and metal elements stable isotope systems (Mg, Ti, Cr, Fe, Ti, Cu, Zn, Mo), and has constructed a medium-low-temperature thermochronology isotope technology system that employs the conventional Ar-



Multi receiver plasma mass spectrometry



Ar method and (U-Th)/He dating. Important achievements have been made in the fields of geoscience research, and the research and development of experimental techniques and methods.



Argon-argon thermal geochronology laboratory



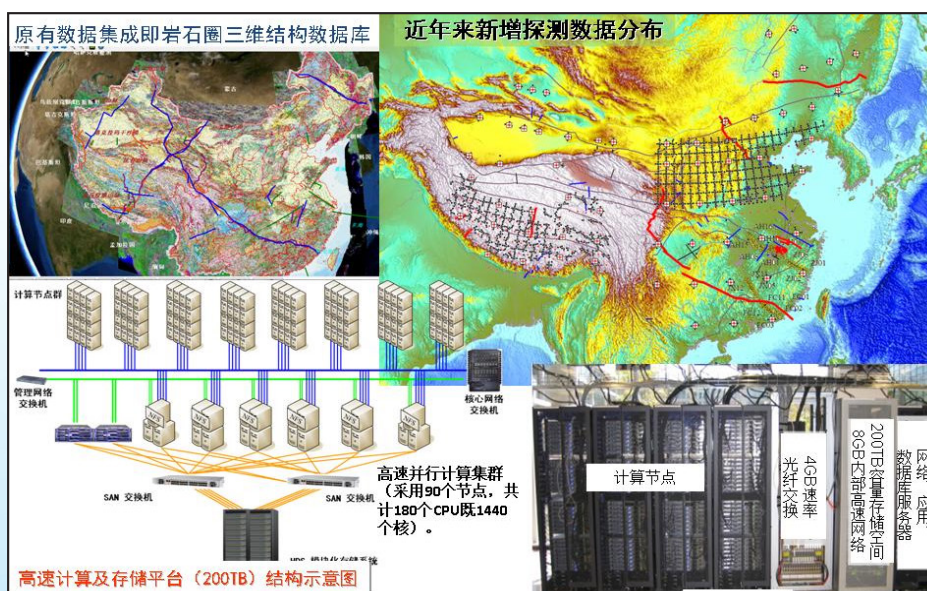
Thermal ionization mass spectrometry laboratory

Key laboratory of Earth Probe and Geodynamics, Ministry of Natural Resources

The deep structure and geodynamics of China's mainland have been explored by using the pioneering technology of deep seismic reflection profiles and the multidisciplinary integration of many geophysical methods, including gravity and magnetoelectric surveys, petrology probes, and structural mapping. This has provided a scientific basis for understanding the formation and distribution of resources, the occurrence of geological disasters and the controls of environmental change.

The laboratory has equipment for deep seismic sounding, broadband digital seismic observation, magnetotelluric sounding, and deep gravity and magnetic force measurements, together with other advanced detection equipment.


It has a data-processing node network composed of workstations, servers, and PCs and a graphic and graphical interactive interpretation system. It is equipped with hardware facilities, such as tape drives, disk arrays, and plotters, and internationally advanced data-processing and interpretation software.



Deep-probe database and data-sharing platform built on large node machines

Collaborative Research Center for Stratigraphy and Paleontology, China Geological Survey

The Collaborative Research Center for Stratigraphy and Paleontology studies the generation and evolution of strata, biological origins, and evolution to resolve key strata and paleontological problems in geological surveys. It has also



organized the construction of an ancient fossil database, undertakes basic research, including the evolution of early life, changes in biological processes, and changes in the geological environment, and compares important strata and generations. It develops basic theories of strata and paleontology, and explores and summarizes methods for the geological mapping of terrestrial and marine strata.

Three-dimensional Geological Survey Center, China Geological Survey

The Three-dimensional Geological Survey Center comprehensively investigates the three-dimensional structures of plate tectonics and integrates the results of regional and thematic three-dimensional geological surveys. It is responsible for the construction, management, and sharing of three-dimensional geological databases, and the dissemination of three-dimensional geological big data. The department has achieved both scientific and technological advances and has established a platform for the release of information to geological institutes (<http://www.igeodata.org>).

Division of Regional National Geology and Mapping, China Geological Survey

The Division of Regional National Geology and Mapping develops comprehensive global, intercontinental, national, regional, and professional maps and updates them, and comprehensively studies major regional geological issues. It has developed national standards and specifications for geological mapping on a small scale. Its aims include the development of a comprehensive geoscience spatial mapping database and service product development, a regional geological survey, and geological mapping demonstration research, new method application promotion work.

【 International Cooperation and Exchange 】

The Institute of Geology has established sound cooperative relationships with more than 60 scientific research institutions and universities in more than 20 countries and regions, including the United States, Russia, France, Britain, Germany, and Japan, and has undertaken more than 30 international cooperative research programs. 14 experts hold important positions in international academic organizations, and more than 40 foreign scholars have been appointed as guest researchers at the institute. 4 famous foreign scholars with long-term associations with the institute have won Chinese Government Friendship Awards.

In recent years, the Institute of Geology has held many international and domestic academic conferences, which have had significant academic influence both at home and abroad. The institute implements the International Geological Mapping Projects in Asian countries, and has established a new platform for international academic communication and cooperation. The Beijing SHRIMP Center has become a significant platform supporting the development of solid-earth science and implements international academic exchanges. Chinese Continental Scientific Drilling has attracted many foreign geologists into cooperative projects with Chinese geologists. The institute has published its own English-language annual reports since 2010.



Marie-Luce Chevalier



Allen Nutman



Yildirim Dilek



Paul T Robinson



Stephen Clement



【 Serving the society 】

The Institute of Geology has actively promoted the popularization of science. The Beijing SHRIMP Center, the Key Laboratory of Deep Geodynamics and the Key Laboratory of Stratigraphy and Paleontology have organized public activities on Earth Day (April 22) for several years, with considerable social effects.



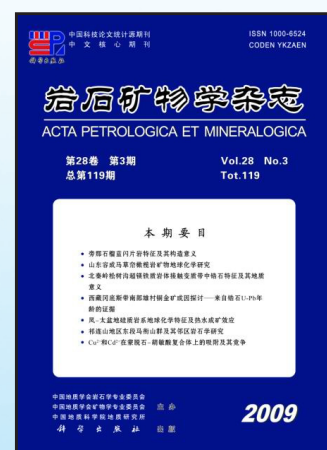
Science popularization activities on previous Earth Days



Teachers and students from J. S. Lee Young Pioneers Class and staff from the Institute on Earth Day

【 Publications 】

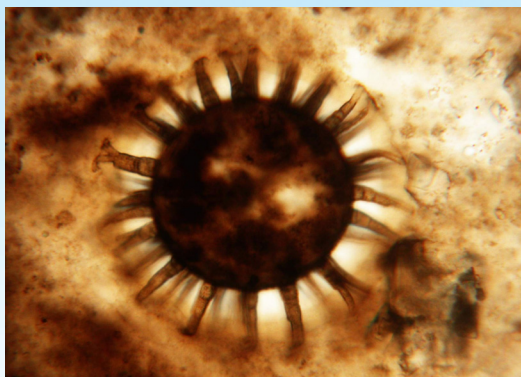
Acta Petrologica et Mineralogica is an academic journal jointly published by the Petrology Committee of the Geological Society of China, the Minerology Committee of the Geological Society of China, and the institute. This magazine is one of the core Chinese journals in geosciences and is published bimonthly by Science Press, both at home and abroad. The magazine is published on the 25th of every odd-numbered month. Since its first issue was published, with the aim to serve geoscientists and teaching staff, the magazine has followed the principle of giving free reign to all schools of thought, focusing on science popularization as well as academic progress and academic exchange and discussion.



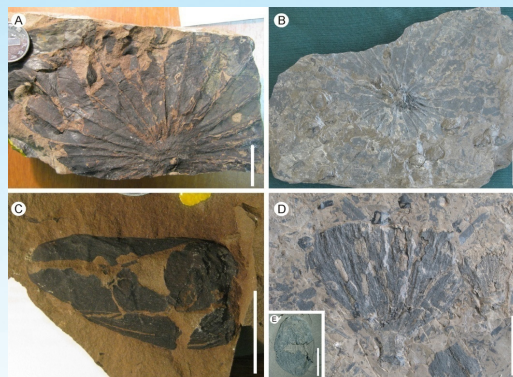
【 Material collection 】

The Institute of Geology maintains a collection of more than 100, 000 geological books of various periods, more than 200 kinds of magazines, a variety of geological maps, and over 9,000 sets of geological maps and

relevant material. The institute also collects rare specimens, and this collection includes about 100 specimens of fine fossils representing the origins of birds, eutherians, and angiosperms. The institute keeps bore samples (total length of several-thousand meters) obtained during the China Continental Scientific Drilling Project and Wenchuan Earthquake Faults Scientific Drilling Project, and hundreds of precious structural and rock samples from other countries or regions.



Spinose acritarch fossil



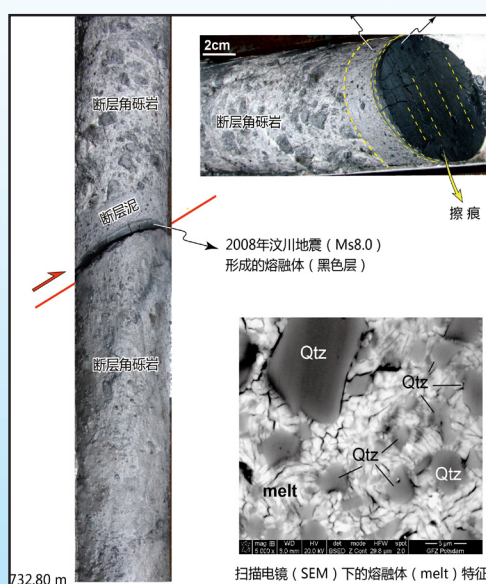
Nelumbo fossils



Chaoyang Sapeornis fossil



Eomaia scansoria fossil



Bore samples collected by the Wenchuan Earthquake Fault Scientific Drilling project



Mantle peridotite sample



【 Graduate education 】

The Institute of Geology is one of the first academic institutions qualified to confer doctoral and master's degrees and provide postdoctoral research positions. It has 2 first-level doctoral degree programs, 8 doctoral degree programs, 11 master's degree programs, and 2 mobile postdoctoral centers. It has a teaching faculty of 38 doctoral student advisers and 40 advisers to candidates for a master's degree in the academic fields of tectonic geology, mineral rock mineralogy, paleontology, geophysics, geochemistry, and other geoscience fields, and enrolls 35 graduate students each year. In 2016, it was selected as a "Demonstration Base for Cultivation of Innovative Talents" by The Ministry of Science and Technology of China.



【 Descriptions for graduate studies 】

1. The academic adviser responsibility system has been implemented for the guidance of candidates for a master's degree, and giving full play to both academic advisers and scientific research groups in guiding students. Doctoral student advisers bear the main responsibility for training and guiding doctoral candidates, and academic guidance groups provide collective training and academic advice.

2. Graduate students in the first year of a master's degree and doctoral students in the first semester take courses at the University of Chinese Academy of Sciences. Accommodation for graduate students is arranged by the University of Chinese Academy of Sciences.

In the second year of a master's degree and the second semester of a doctoral degree, graduate students return to the Institute of Geology, conduct research related to their graduate theses and write their theses under the guidance of advisers.

3. In the first semester of enrollment, the Graduate School organizes students to attend field courses.
4. Lectures by academicians and other academic seminars are organized regularly.
5. To improve the quality of talent training and to promote scientific research and international exchanges, the Graduate School encourages joint training programs with foreign academic institutions. Graduate students can go abroad to undertake joint training. The cumulative time spent overseas is generally no more than 2 years and the total amount of time spent in overseas study cannot exceed the required length of study. To expand international academic exchanges and broaden the horizons of graduate students, the Graduate School also encourages graduate students to participate in international academic conferences and international cooperative research programs.
6. Students working towards a master's degree are encouraged to deliver 1 academic report, and doctoral students are required to deliver at least 1 academic report.
7. The Graduate School organizes on-site visits to museums, sports meetings, student parties and other activities.

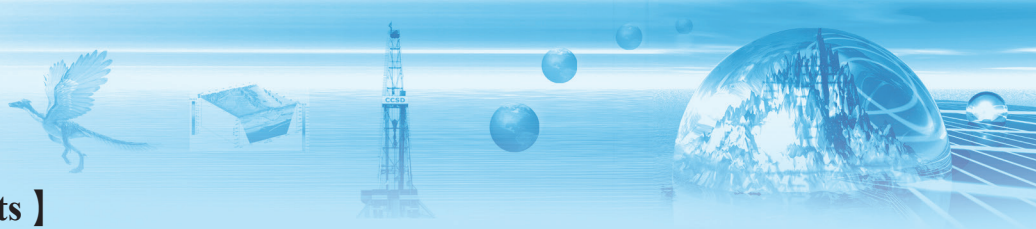


Graduate Field Courses



Graduate Student Games





【 Logistical Arrangements 】

1. The University of the Chinese Academy of Sciences arranges student accommodation, and dining standards are at the same level as for formal staff members.
2. The Institute of Geology arranges offices for graduate students;
3. In terms of research allowance, graduate students in the first school year of a master's degree receive 800 yuan/person/month; in the second school year, no more than 1,200 yuan/person/month; and 1,500 yuan/person/month after passing the mid-term assessment. Doctoral students in the first school year receive 1,000 yuan/person/month; in the second school year, no more than 1,500 yuan/person/month; and 1,800 yuan/person/month after passing the mid-term assessment.
4. Field work allowance: accommodation standards are at the same level as for formal staff members of the Institute during field work.



Brief Introduction to Doctoral Advisors

Shen Qihan, Academician

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Main research fields:

Dr. Shen has been engaged in the study of early Precambrian geology and metamorphic petrology, early Precambrian isotope chronology, and iron and copper mineral research for many years. He has made important contributions to both applied and basic research. He has published 15 monographs (including 1 collective of drawing), more than 120 papers, 27 types of exploration reports and scientific research reports. He has been awarded 1 first (also awarded State Science and Technology Prize, Second Class), 3 second and 1 third prizes at the ministerial level.



in comprehensive geological mapping. He has directed the preparation of various geological maps, including the Geological Atlas of China, the Asian Geological Map, and the Eurasian Geological Map, raising the profile of Chinese geological mapping and charting to a new levels. He has published more than 130 papers, received the State Natural Science Award (First Class), National Science and Technology Progress Award (Second Class), Scientific and Technological Achievements Award (First Class) from the former Ministry of Geology and Mineral Resources of China, a special prize at the Scientific and Technological Achievements Awards of the State Oceanic Administration, second prize at the Scientific and Technological Awards of the Ministry of Land and Resources of China, the National Book Award, and second prize from the National Science and Technology Library.

Xiao Xuchang, Academician

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Main research fields:

Dr. Xiao's research mainly involves plate tectonics, ophiolites, and high-pressure metamorphic belts. He has undertaken the first systematic research into high-pressure blueschist belt of the Qilian Mountains, established the complete Chinese ophiolite sections, explored the distribution of the main ophiolite belts in China and their tectonic significance, and plays leading roles in research into the Qilian orogenic belt and other plate tectonics. Dr. Xiao has been involved in the field geology on the Qinghai-Tibet Plateau and in Xinjiang. He had undertaken field work in Tibet many times and is currently involved in geological studies of the Qinghai-Tibet Plateau. He has provided a new understanding of several major geological problems, including the formation and evolution of the Tethys, and the breakup and dispersal of Gondwana. Dr. Xiao has published more than 50 papers and 7 monographs. He has won the National Science Conference Award, 1 first prize and 2 second prizes at the provincial and ministerial level, Li Siguang Geological Science Award, and the Ho Leung Ho Lee Award.



Ren Jishun, Academician

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Main research fields:

Dr. Ren has been engaged in the study of Chinese tectonics and global tectonics for a long time. He is a research fellow at the Institute of Geology, Chinese Academy of Geological Sciences, the Chair of Structural Geology and Geodynamics Commission under the Geological Society of China, and Vice President of the Commission for the Geological Map of the World (CGMW). He currently chairs major international cooperation projects of CGMW, and is involved in the preparation of the International Geological Map of Asia (1:5 million). His current research address major geological problems in Asia, exploring Asian tectonic evolution and its control of the environment, especially the geological backgrounds of petroleum and natural gas resources.



Li Tingdong, Academician

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Main research fields:

Dr. Li has engaged in regional geological investigations for many years, is familiar with the geology of China and Asia, and is an expert



Gao Rui, Academician

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Main research fields:

Dr. Gao has long been engaged in research into deep geophysical exploration and continental lithosphere tectonics and geodynamics. For over two decades, he has performed systematic and comprehensive studies of the deep structures of the Tibetan Plateau, its adjacent areas, and a number of orogenic belts, using the deep seismic reflection profiling. More than 8,000km of deep reflection profiles have been completed under his leadership. He has developed deep seismic reflection profiling technology, made many important geological discoveries, provided new knowledge, and promoted the study of



continental dynamics. He has led and completed over 20 key scientific projects at the national and ministerial level. He has published more than 270 academic papers, as first author or corresponding author on over 100 of these, and has co-authored 12 monographs. He has received National Science and Technology Progress Awards (two First Prizes and four Second Prizes) at the ministerial level.

Yang Jingsui, Academician

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Main research fields:

Dr. Yang has a PhD in geology from the University of Dalhousie, Canada, and is the Chair of the Petrology Commission, Geological Society of China, and is a member of both the Geological Society of America and the Mineralogical Society of America. He has been engaged in the study of petrology and tectonics for many years, focusing on the Qinghai-Tibet Plateau terrain boundary and orogenic belt, ophiolite chromite, and deep mantle minerals. Under his leadership, the Center for Advanced Research on the Mantle has recently undertaken the International Geoscience Program (IGCP)-649, which intends to comparatively study the minerals from different ophiolites, chromites, and the deep mantle worldwide. With outstanding research results, he has won a State Natural Science Awards as well as other national, provincial, and ministerial awards.



Hou Zengqian, Academician

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Main research fields:

Dr. Hou has long had a role in regional metallogeny, tectono-magmatic mineralization, continental metallogeny, submarine hydrothermal mineralization, and magmatism in orogenic belts. He has undertaken geological research and conducted the Tethys domain correlation study on the Qinghai-Tibet Plateau and in the southwest Sanjiang region. He has systematically demonstrated the metallogenic mechanism of the Qinghai-Tibet Plateau continental collision, making substantial contributions to the development of the metallogenic theory of continental collision. He has established the metallogenic model of collisional porphyry copper ore and developed the metallogenic theory, facilitated the discovery of copper in Gangdise belt; established a new model of the inverse thrust fold system and a new method of lead-zinc metallogenic prospecting, and directed a prospecting breakthrough of a super-large deposit in the lead-zinc mine in Duocaima, Qinghai. He has been awarded the National Science and Technology Progress Award (one special prize and one first prize), and 4 first prizes of ministerial awards. He has edited 4 special issues of international journals, published 4 monographs in Chinese, 170 SCI papers in Geology, EPSL, Scientific Reports, Economic Geology and other journals,



and has been cited 5,008 times by SCI. He has been elected Vice President of the Society for Geology Applied to Mineral Deposits and is a member of the Society of Economic Geologists (SGE). He is the first Chinese scholar selected as an SEG Regional Vice President Lecturer.

Xu Zhiqin, Academician (Guest Professor)

Email: xzq@ccsd.cn

Main research fields:

Prof. Xu has undertaken many field geological survey and much scientific research on the Qinghai-Tibet Plateau and its peripheral orogenic belts.



She has applied geometry, kinematics, dynamics, and the quantitative analysis of structural geology to the study of the Tibetan Plateau and Chinese orogenic belts. In the past 20 years, she has identified 50 large-scale ductile shear zones in Chinese orogenic belt, and established the deformational tectonic framework of the main orogenic belts in the west. She has proposed that the largest Altun fault in Central Asia is translated nearly 400 kilometers to the left, and that the Himalayas formed in the Pan-African Early Paleozoic era. She has also proposed a new model of the Qinghai-Tibet Plateau structure and a new deep dynamics model for the formation of the Qinghai-Tibet Plateau, and put forward a series of important ideas and theories on the collision dynamics and orogenic mechanisms of the Qinghai-Tibet Plateau. She was formerly Vice President of the Chinese Academy of Geological Sciences and Director of the Institute of Geology, a Member of the Standing Committee of the Academy of Earth Sciences of the Chinese Academy of Sciences, a delegate of the Ninth and Tenth National People's Congress, a Member of the Tenth National People's Congress Standing Committee, and a Member of the Standing Committee of the National People's Congress Environment and Resources Committee. She is now the Chief Scientist of the Chinese Continental Scientific Drilling Project, the "973" Basic Research Project, and the National Natural Science Foundation of China. She has published 8 monographs and nearly 200 papers. She has won numerous outstanding paper awards and ministerial science and technology awards. She was awarded the title of "Returning Students with Outstanding Contributions" and "Young Scientists with Outstanding Contributions" by the State Education Commission and the Ministry of Personnel in 1991. In October 1991, she won the second Li Siguang Award for Geological Sciences, and in 2004, the Liang He Li "Science and Technology Progress Award".

Yang Wencai, Academician (Visiting Professor)

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Main research fields:

Prof. Yang designed and manufactured the RM-1 geophysical multi-use resistance network simulation computer for Albania.



In the 1970s, he proposed theories and methods for the interpretation of gravity and geomagnetic anomalies in the frequency domain. He has served as the Director of the Geophysical and Chemical Exploration Institute of the Ministry of Geology and Mineral Resources. He is currently the Deputy General Commander of the China Continental Scientific Drilling Engineering Center and head of the China Geological Survey project of geophysics. He has delivered lectures at various universities, including Peking University, China University of Geosciences, and Tongji University, on many occasions. He has been continuously involved in geophysical research and developed innovative techniques, climbed the peak of science, and has systematically developed applied geophysical theories, methods, and related geoscience studies in China. Some original achievements have contributed to advancement in discipline development, geoscience research, and resource exploration. His main academic achievements have involved three aspects: the theories and applications of geophysical inversion, advances in applied geophysical research, and deep reflection seismic studies of the crust and mantle. Prof. Yang Wencai and his colleagues at the Continental Scientific Drilling Center have published more than 50 interdisciplinary papers.

Chen Wen, Research Fellow

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Main research fields:

The main research fields of Dr. Chen are isotope geochronology and geochronology. His research interests are: (1) orogenic processes and the uplift and denudation history of orogenic belts; (2) isotope thermochronology of the mineralization processes of metallic mineral deposits and their uplift and exhumation processes; (3) the occurrence, development, and disappearance age of important paleobiocoenoses (with the Chinese Mesozoic continental biota as the research focus); (4) the tectono-thermal evolutionary history of sedimentary basins; and (5) methods of rare gas isotope dating and technological methods for thermal geochronology. The main research sites of Dr. Chen are the Xinjiang Tianshan area, the Tibetan Plateau hinterland and eastern margin, and Hebei (western Liaoning and the Dabie–Jiangsu and Shandong areas). He has undertaken over 20 types of scientific research projects. He has published more than 180 academic papers (including over 60 papers as first author and corresponding author), published two monographs (co-authored), and won one first prize for Scientific and Technological Achievements from the Ministry of Land and Resources.



Ding Xiaozhong, Research Fellow

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Main research fields:

Dr. Ding is involved in the comprehensive study of regional geology, geological mapping, and



the application of GIS. He has carried out planetary (the Moon), intercontinental, national, and regional geological mapping and updating projects, setting norms and standards, and the construction of a geological map database. He has also undertaken a study of the basin-and-range coupling sedimentary tectonic response of the Jiangnan orogenic belt, East Kunlun, the Tarim Basin, and its adjacent areas (Tianshan, West Kunlun). He has led and participated in more than 20 key projects at ministerial and national levels. His main achievements include large geological maps, Atlas, papers, monographs, and a database of more than 100 items. He has won one first prize and one second prize in the Science and Technology Achievement Awards of the Ministry of Land and Resources, one first prize from the State Bureau of Surveying and Mapping, and one second prize in the Geography Science and Technology Progress Awards.

Kuang Hongwei, professor

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Main research fields:

Prof. Kuang has long been engaged in the study of petroleum geology; Precambrian sedimentation, stratigraphy, and events; and Mesozoic sediments, strata, and the burial of dinosaur fossils. In her petroleum geology research, she has mainly undertaken a comprehensive evaluation of sedimentation, industrially favorable, and the geological conditions for oil and gas deposits, and has established a set of technical methods and evaluation systems for the study of sedimentary reservoirs. Her Precambrian research has mainly focused on carious carbonate rocks, stromatolites, and Neoproterozoic strata and events. She has also established the Mesozoic–Cretaceous stratigraphic framework in northern China, and opened up a new field of dinosaur fossil burial research. The research projects that are in progress or have already been completed, which exceed 40 projects, include National Key Research and Development projects and National Natural Science Foundation projects. She has published more than 100 papers and two monographs. Among them, “Cretaceous dinosaur fossil burial research in Zhucheng, Shandong Province”, was selected as the “Excellent Paper of the Year (2017) for Chinese Sci-Tech Journalists”.



He Bizhu, Research Fellow

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Main research fields:

Dr. He has mainly been engaged in the analysis of basin structures, the study of tectonic responses in basins and peripheral orogenic belts, and the optimization of oil and gas exploration targets. She has provided many new insights



into and significant achievements in the structural analysis of Dongpu Sag in Bohai Bay Basin, in Sultan Muglad Basin, and in Tarim Basin, and in the evaluation of oil and gas exploration targets. She has joined, organized, and completed over 20 projects of the Ministry of Land and Resources, the China Geological Survey, the Sinopec Science and Technology Department, and Zhongyuan Oilfield. She has won one third prize of the Science and Technology Progress Award at the provincial and ministerial levels, and eight first prizes in the Science and Technology Progress Awards at the bureau level. She has published more than 40 academic papers in key academic journals, both nationally and internationally, and as first author in 19 of them.

Jin Xiaochi, Research Fellow

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Main research fields:

Dr. Jin has been engaged in the study of biostratigraphy, sedimentation, and paleogeography for many years. His main study sites are western Yunnan and the Qinghai-Tibet Plateau and its surrounding areas. His research has mainly focused on late Paleozoic biostratigraphy, sedimentation, and paleogeography. He has undertaken in-depth research into the distribution of Gondwanan sediments and biology in China, the distribution and correlation of Gondwanan blocks in southwest China, and the development and evolution of the Tethys. Dr. Jin has studied the uplift of and environmental changes on the Qinghai-Tibet Plateau and the Tianshan Mountains during the Cenozoic and their corresponding stratigraphic and sedimentological records.



Li Qiusheng, Research Fellow

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Lqs1958@163.com

Main research fields:

Dr. Li has long been involved in the deep structural exploration of the Earth and research into continental lithospheric dynamics, and is a specialist in artificial- and natural-source seismic exploration methods. He has participated in or directed the completion of multiple projects for the National Natural Science Foundation, international cooperative projects for the Ministry of Science and Technology, special public industry projects, and National Land and Resources Investigation Projects. He has published more than 100 academic papers, both nationally and internationally (as first author on more than 40, as corresponding author on three, and including 10 SCI and EI papers), and five co-authored monographs. He has won one first prize and two second prizes for Scientific and Technological Achievements at the ministerial level.



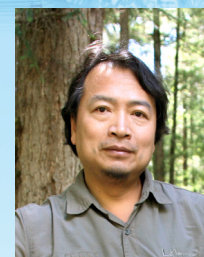
Li Haibing, Research Fellow

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Main research fields:

The main research fields of Dr. Li are tectonic geology and tectonic activity. His research fields include Qinghai-Tibet Plateau strike-slip faults and plateau deformation; active faults and tectonic geomorphology; faulting; seismic geology and earthquake physics; basin dynamics; soft-sediment deformation structures; and the relationship between earthquakes and oil and gas deposits. His main research sites are the Qinghai-Tibet Plateau and adjacent regions. He has led and undertaken over 20 key projects funded by the National Natural Science Foundation of China, the National Key Development Program (973 Program), and the National Science and Technology Support Program, international cooperative projects, the National Land and Resources Investigation Projects, and oil sector projects. He has been selected for and included in the National Talents Program, and received a special governmental allowance. He has won one second prize National Natural Science Award, one first prize and one second prize for Scientific and Technological Achievements from the Ministry of Land and Resources of China, and two second prizes for Scientific and Technological Achievements from the former Ministry of Geology and Mineral Resources of China. He has published more than 170 papers in key academic journals, both nationally and internationally, including 92 SCI papers and five co-authored monographs.



Liu Fulai, Research Fellow

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Main research fields:

Dr. Liu's research focuses on the formation and evolution of cratons and orogenic belts, and the metamorphism and deep melting of early Precambrian high-grade metamorphic rocks. He was awarded the National Science Fund for Distinguished Young Scholars Award and is Head of the Metamorphic and Precambrian Research Division of the Institute of Geology. He has led and participated in more than 30 research projects at the provincial and national levels, and has won many awards at the ministerial, provincial, and national levels. He was elected a member of the Geological Society of America, a Leading Talent of the Ministry of Land and Resources, and an Outstanding Geological Talent of the China Geological Survey, and the National Talents Project, among others. He has published more than 230 papers in key academic journals at home and abroad, among which more than 140 were SCI papers. His studies have been cited by SCI more than 4,500 times and he has published seven co-authored monographs.



Liu Pengju, Research Fellow**Telephone: 010-68999697****Email: pengju@cags.ac.cn****Main research fields:**

Dr. Liu has been involved in research into early paleontology, stratigraphy, and the early origins and evolution of life from the late Precambrian to the early Cambrian. His main research direction at present is Ediacaran microfossils, their biostratigraphy, and chronostratigraphy. He is a voting member of the Subcommission on Ediacaran Stratigraphy and the International Commission on Stratigraphy, and is Vice Chair of the Fossil Algae Commission of the Palaeontological Society of China. In recent years, he has led over 10 scientific research projects at the ministerial, provincial, and national levels, making important progress towards defining the microbiota groups of the Ediacaran assemblage and the biostratigraphy of Southern China. He has won one second prize for Scientific and Technological Achievements from the Ministry of Land and Resources, and published 20 papers as the first and corresponding author, including one English monograph and 12 SCI papers.

**Liu Yongqing, Research Fellow****Telephone: 010-68995462****Email: Liuyongqing@cags.ac.cn****Main research fields:**

Dr. Liu has long been engaged in and has made substantial contributions to research in sedimentary geology, regional geology, petroleum geology, stratigraphy, chronostratigraphy (especially the distribution and evolution of the terrestrial biota of the late Mesozoic in North China), continental volcanic-sedimentary stratigraphy and chronostratigraphy, volcanic magmatism, tectonic and sedimentary geology (including basin evolution), infilling development, sedimentary paleogeography, and environmental research. In 2005–2007, he won one first prize and two second prizes in the Scientific and Technological Progress Awards of the Ministry of Land and Resources of China. Since 2000, he has co-edited three monographs and published more than 30 papers.

**Lv Junchang, Research Fellow****Telephone: 010-68999707****Email: lujc2008@126.com****Main research fields:**

Dr. Lv has worked for many years in Mesozoic reptiles (especially dinosaurs and pterosaurs) and their stratigraphy, focusing on the morphology and phylogeny of the large sauropod dinosaurs, and phylogenetic studies of the small theropod dinosaurs and pterosaurs. His sites of research are mainly western Liaoning,



northern Hebei, Henan Province (southwest Henan, including Ruyang, Luanchuan, and Nanyang), Chuxiong in Yunnan Province, Heyuan in Guangdong Province, the Nanxiong Basin, Ganzhou in Jiangxi Province, Inner Mongolia, Jiayin in Heilongjiang, Gansu, and Datong in Shanxi. He has completed two National Natural Science Foundation projects, and is now leading a key project. He has participated in many large-scale international dinosaur expeditions (in countries including Canada, Mongolia, Thailand, and Japan), and published more than 90 papers at home and abroad, including as the first author on 40 SCI papers, and four monographs, as either first author or co-author.

MARIE-LUCE CHEVALIER**(Ma Xiaoli), Research Fellow****Email: mlchevalier@hotmail.com****Main research fields:**

Dr. Chevalier is a Belgian expert engaged in research into active tectonics. In 2010, she was introduced to China as a foreign expert by the Huang Jiqing Youth Talent Program and has been working at the Institute of Geology of the Chinese Academy of Geological Sciences since then. In recent years, she has mainly engaged in the study of active tectonics, tectonic geomorphology, paleoclimate, and cosmogenic nuclide dating on the Qinghai-Tibet Plateau. As first author, she has published two papers in Science (the top international academic journal), and many papers in EPSL, QSR, GRL, Tectonophysics, etc., and has international influence in her research field. She is currently responsible for one project of the China National Natural Science Foundation and one project of the Fundamental Scientific Research Fund of the Institute of Geology. She has participated in many projects funded by the China National Natural Science Foundation, the Ministry of Science and Technology, and the China Geological Survey.

**Meng Fancong, Research Fellow****Telephone: 010-68999734****Email: mengfancong@yeah.net****Main research fields:**

In recent years, Dr. Meng has mainly been involved in research into the mineralogy of basic-ultrabasic rocks, subduction zone fluid activity and genetic mineralogy, and the mineralogy of garnet. His research sites in recent years have predominantly been the northern margin of the Qaidam Basin, Eastern Kunlun, and the Russian Arctic Urals. He has led and participated in 15 research projects at the ministerial level, and published nearly 50 papers as first author in key journals at home and abroad, including 30 SCI papers.



Qi Xuexiang, Research Fellow**Telephone: 010-68999716****Email: qxuex2005@163.com****Main research fields:**

The main research areas of Dr. Qi are tectonic geology, magmatic activity, and mineralization. His research directions include tectonic deformation and formation, the evolution and mineralization of orogenic belts, magmatism, and plate amalgamation. His research sites include the Qinghai-Tibet Plateau in the high Himalayas, the Tethys, the Himalayas, West Kunlun, the Qilian Mountains, northern Qaidam Basin, Arkin, Hoh Xil, southwest Sanjiang, and other tectonic belts. At present, he is focusing on the tectonic deformation, magmatic evolution, and metallogenic background of the Sanjiang tectonic belt at the southeast margin of the Qinghai-Tibet Plateau. He has won two first prizes and one second prize of Science and Technology Achievement Award of the Ministry of Land and Resources and one second prize of Science and Technology Progress Award of the former Ministry of Metallurgical Industry. In 2015, he was awarded the title of Advanced Individual of Qinghai Tibet Plateau Geological Theory of Innovation and Breakthrough in Prospecting by the Ministry of Land and Resources. He has published more than 60 papers in key academic journals, nationally and internationally, including 28 SCI papers.



in Southern China and Iran; and the theoretical analysis and application of geological fluids. He has participated in projects funded by the 973 Program, the China National Natural Science Foundation, the National Key Research and Development Program, and the China Geological Survey, among others. He has published more than 20 papers as first and corresponding author, 10 of which were SCI papers. In 2016, he won a First Class Scientific and Technological Award from the Ministry Land and Resources (ranked no. 3).

Shi Yuruo, Research Fellow**Telephone: 010-68999766****Email: shiyuruo@bjshrimp.cn****Main research fields:**

Dr. Shi's research is in isotope geochronology and petrology. He has led and participated in six National Natural Science Foundation of China projects and led a special project of the Ministry of Land and Resources. His research fields include Precambrian metamorphic basement, reconstruction of the Columbia supercontinent, the Central Asian orogenic belt, the Qinling Mountains orogenic belt, the orogenic evolution of the Sanjiang Tethyan tectonic magmatic belt, SHRIMP zircon U-Pb dating of young geological bodies, xenotime, rutile, and other baddeleyites containing U as an auxiliary mineral. He has published more than 80 papers, as first author on more than 20 of them.

**Ren Liudong, Research Fellow****Telephone: 010-68999727****Email: ldren@cags.ac.cn****Main research fields:**

Dr. Ren is engaged in the study of the geological evolution of medium-high-grade metamorphic regions, involving anatexis, the mechanisms of hybrid lithologies, the genesis of granite, and the properties of Pan-African tectonics. He has published more than 40 academic papers (more than 30 as first author) and four monographs (co-authored). He has led many projects for the National Natural Science Foundation of China and the China Geological Survey, projects funded by the Ministry of Finance, National Antarctic Special Projects, and scientific projects of the Ministry of Land and Resources. He won the 2017 China Polar Expedition Advanced Individual Award, jointly issued by the Ministry of Human Resources and Social Security and the State Oceanic Administration.

**Tong Ying, associate research fellow****Telephone: 010-68999732****Email: yingtong@cags.ac.cn****Main research fields:**

Dr. Tong's main research fields are granite geodynamics, magmatism and mineralization, and volcanic reservoirs. He has directed seven projects funded by the China National Natural Science Foundation, the China Geological Survey, including international cooperative projects. He has participated in 12 projects of the 973 Program, National Key Funds, the China Geological Survey, and others. He has won one First Class Scientific and Technological Award from the Ministry of Land and Resources and one Achievement Prize from the China Geological Survey. He is committed to the study of granites in different orogenic belts in China and Asia, focusing on the study of granite magmatism and mineralization in settings of large-scale extension across the central Asian orogenic belt.

**Song Yucai, Research Fellow****Telephone: 010-68999748****Email: song_yucai@aliyun.com****Main research fields:**

Dr. Song is predominantly engaged in research into lead-zinc base metal deposits when sedimentary rocks are the surrounding ore-bearing rocks, on the Qinghai-Tibet Plateau and



Wan Yusheng, Research Fellow
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Main research fields:

The main research fields of Dr. Wan include zircon and SHRIMP geochronology, isotope geochemistry, and the early Precambrian. He works at the Beijing SHRIMP Center and his main research site is the North China Craton. He has won many prizes, including a first prize in the Scientific and Technological Achievements Awards of the Ministry of Land and Resources. He has published more than 260 papers and four monographs, 31 as first and corresponding author, and an international SCI thesis. He has been cited 6281 times by SCI and 42 times by the H-index, and has been shortlisted for the Elsevier List of China's Most Cited Researchers in 2014–2016.



Wang Yanbin, Research Fellow
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wangyanbin@bjshrimp.cn

Main research fields:

Dr. Wang is engaged in research into isotope chronology, geological structures, ore deposit geochemistry, and isotope geochemistry in the Antarctic, on the Qinghai–Tibet Plateau, and elsewhere. He has led 10 projects at the ministerial, provincial, and national levels, and has participated in a number of scientific projects funded by the National Natural Science Foundation and National Key Scientific and Technological Research Projects. He has published over 80 papers in domestic and foreign academic journals, as first author in over 20 papers, and has co-authored five monographs.



Wang Tao, Research Fellow
Telephone: 010-68999658

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Main research fields:

In recent years, Dr. Wang has led and completed a number of key scientific projects funded by the National Natural Science Foundation, the International Cooperation Projects Fund, the National 973 Projects Fund, and the China Geological Survey. He has published more than 180 papers, among which more than 60 were as first author and 35 of which were SCI and EI papers (as first and corresponding author). He has won first prizes in the Science and Technology Achievement Awards of the Ministry of Land and Resources of China, first prize from the China Geological Survey, a geological mapping award from the former Ministry of Geology and Mineral Resources of China, and a Science and Technology Progress Award of the Chinese Academy of Geological Sciences. He has worked with geologists from Russia, the United States, Mongolia, Spain, Australia, and Germany in international cooperative research. His research directions include granite and mineralization, continental crust growth, tectonic deformation, and orogenic belt evolution. His research sites include the Central Asian orogenic belt, the Qinling Mountains orogenic belt, and the North China block. He has made advances in the temporal and spatial evolution of granites in China and its adjacent areas, crustal growth in Central Asia, and Mesozoic crustal extension in Northeast Asia. He is the Deputy Director of the Institute of Geology, Chinese Academy of Geological Sciences, Vice Chair of the Structural Geology Commission under the Geological Society of China, Secretary General of the Regional Geology and Mineralization Commission under the Geological Society of China, and editorial board member of the *Journal of Rock Mineralogy*.



Wu Cailai, Research Fellow
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Main research fields:

Dr. Wu is the Head of the Igneous Rock Research Division of the Institute of Geology, Vice Chair and Secretary of the Petrology Commission, Geological Society of China, a member of the Non-Metallic Mineral Commission, the Volcano and Interior Chemistry of the Earth Commission, the Chinese Society for Mineralogy, Petrology, and Geochemistry, the Volcano Commission, and the Chinese Association for Disaster Prevention. He is also a member of the editorial board of the *Journal of Petromineralogy* and *Northwest Geology*, one of an eight-member team of scientists in the China Lunar Exploration Project of the Ministry of Land and Resources of China, and an expert reviewer for the National Science and Technology Awards. He graduated from Changchun Institute of Geology in 1982. He received his master's and doctoral degrees in petrology from China University of Geosciences (Beijing) in 1991 and 1994, respectively, and completed his study as a postdoctoral researcher in 1996. In 1998, he was promoted to research fellow, and has acted as a master's degree and doctoral advisor in 1999 and 2002, respectively. As a senior visiting scholar, he has visited National Cheng Kung University, Stanford University (USA), and Université de Technologie de Belfort-Montbéliard (France). He has been responsible for 15 projects funded by the National Natural Science Foundation and the National Specialized Projects of the Ministry of Land and Resources, and the China Geological Survey. He has published more than 160 papers in key journals at home and abroad, and won nine national invention patents, one second prize in the National Natural Science and Technology Awards, one first prize, three second prizes, and two third prizes in the Science and Technology Achievement Awards of the Ministry of Land and Resources Science, and one first prize in the Science and Technology Achievement Awards of the China Geological Survey. At present, he is engaged in the study of the granites and tectonic evolution of the western orogenic belt in China and the magmatic system and metallogenic dynamics in eastern China.



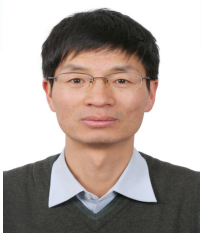
Xue Huaimin, Research Fellow
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Main research fields:

Dr. Xue's research is in petrology and geochemistry. He has long been engaged in the study of the volcanic structure, petrology, and geochemistry of East China, including the middle and lower reaches of the Yangtze River region, the Dabie–Sulu high-pressure–ultrahigh pressure metamorphic belt, the southeastern coastal area, and the Greater Khingan Range area. In the past 10 years, he has led or participated in over 20 projects, including for the National Natural Science Foundation, the Ministry of Science and Technology 973 Program, national special projects in Deep Exploration Technology and Experimental Research, Ministry of Science and Technology projects, and China Geological Survey projects, and has published more than 40 papers. In the past five years, he has published 13 papers, seven of which were SCI papers, and has won two first prizes in the Science and Technology Awards of the Ministry of Land and Resources.



Yan Zhen, Research Fellow
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Main research fields:

Dr. Yan has been engaged for many years in research into orogenic sedimentology, sedimentary basin evolution, the basin range coupling relationship, and the types and genesis of hybrid convergent plate boundaries. His research directions include orogenic sedimentology and the prototype restoration of paleoconvergence plate margin basins. He was the winner of the 11th Youth Geological Science and Technology Silver Hammer Award, of the Geological Society of China. He has led more than 10 scientific research projects. With outstanding research results, he won the Geological Survey Achievement Award of China Geological Survey (ranking no. 1) and first prize in the Science and Technology Awards of the Ministry of Land and Resources (ranking no. 2). He has published more than 40 papers in key journals at home and abroad, 21 of which were SCI papers.



Yang Tiannan, Research Fellow
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Main research fields:

Dr. Yang likes wildlife and specialises in mapping. He approaches all geological research as mapping. He once inferred the mineral interactions in a metamorphic process (high–ultrahigh-pressure metamorphic rocks in the Sulu region) by mapping the mineral reactions under a microscope. In



this way, he has investigated and understood the temporal and spatial variations in orogenic tectonic patterns, and the decomposition of deformation and strain distribution (Tianshan), and has used regional mapping to reveal the contractional strain and superposition of tectonic styles (Dalian). He is currently investigating the synsedimentary deformation of orogenic basins (southwest Sanjiang) with regional mapping, including their different tectonic patterns and temporal and spatial variations, and their association with low-temperature polymetallic deposits. He has published many papers in JMG, JSG, Tectonics, GASB, and other international journals.

Yang Zhiming, Research Fellow
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Main research fields:

Dr. Yang has been involved in the long-term study of porphyry Cu–Mo–Au deposits. In recent years, as a project leader, he has undertaken many projects related to porphyry Cu–Mo–Au deposits, funded by the National Key Research and Development Program, the Ministry of Land and Resources, the China National Natural Science Foundation, the National Basic Research Program (973 Projects), etc. In recent years, he has mainly been engaged in research into porphyry copper deposits and gold deposits, and has achieved results in the following areas: (1) the detailed analysis of collisional orogenic porphyry Cu–Mo–Au ore deposits in Qulong and Tinggong in Tibet and Na Gegoma in Qinghai, determining the geological characteristics and formation mechanisms of these deposits, and proposing a water-rich mechanism for ore-bearing porphyry; the co-development of a metallogenic model of collisional orogenic porphyry copper, and the improvement of the metallogenic theory of porphyry copper; and (2) during nearly 5 years of research in Inner Mongolia and Albert, he identified a new type of gold deposit—a magmatic type of gold, and proposed a model for the magmatic genesis of gold deposits. He is a Fellow of the Society of Economic Geologists (SEG) and a member of the editorial board of *Mineral Deposit Geology*.



Zhang Jin, Research Fellow
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Main research fields:

In nearly 20 years of basic geological research, Dr. Zhang has participated in over 20 projects funded from different sources. Among these, he has directed one project of the China National Natural Science Foundation for Youth, two projects of the China National Natural Science Foundation, three public research projects for central research institutes, four of the large-scale geological surveying projects of the Ministry of Land and Resources, and one project of the UK Royal Society funded by the K.C. Wong Foundation. As the backbone, He has also participated in a leadership role in two projects of the



National Key Basic Research Program (973 Project), four of the large-scale geological surveying projects of the Ministry of Land and Resources, and one project of special study for the State Key Research Program. To date, he has published more than 110 papers (53 as first author), 19 of which were SCI papers and 4 were EI papers. In collaboration with others, he has published 65 papers, of which 16 were SCI papers and 5 were EI papers. He has co-authored two monographs. He is mainly engaged in research into structural deformation and oil- and gas-bearing basins, with main research sites in the Alax blocks, the northern margin of North China, the northeastern margin of the Qinghai-Tibet Plateau, and the Jiangnan orogenic belt.

Zhai Qingguo, Research Fellow

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Main research fields:

The tectonics and geotectonics of the Qinghai-Tibet Plateau are the main research fields of Dr. Zhai. His research focuses on the factors that constrain the tectonic patterns and evolution of the Qinghai-Tibet Plateau and its adjacent areas, in which he studies the ophiolites, high-pressure metamorphic rocks, and related rocks from the perspectives of petrology, mineralogy, geochemistry, and geochronology. He was granted funding by the National Outstanding Youth Science Foundation, and won the 9th Youth Scientific and Technological Award of the Qinghai-Tibet Plateau, the 15th Geological Silver Hammer Scientific and Technological Award for Youth. He was selected to join the Training Plan of 100 Young Geological Talents (2011) of the China Geological Survey, and the Training Plan for Outstanding Young Scientific and Technologic Talents of the Ministry of Land and Resources (2013). He has published over 50 papers in core national and international journals, among which were 24 SCI papers, and he has co-authored two monographs.



Zhang Jianxin, Research Fellow

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Main research fields:

The main research fields of Dr. Zhang are: (1) the relationship between the metamorphism and orogeny of orogenic belts; (2) the metamorphic deformation and chronology of high-ultrahigh-pressure metamorphic rocks; (3) the tectonic evolution and metallogenic setting of continental orogenic belts; and (4) the formation of Precambrian basement and continental crust. His main research sites are the Altun Mountains, the Qilian Mountains, the northern edge of the Qaidam Basin, the Alax blocks, and the western Qinling Mountains in western China. He has published over 100 papers, among which 60 were as first and corresponding author, 40 were SCI papers, and 30 were international SCI papers. Some of his results have aroused great interest both at home and abroad.



Zeng Lingsen, Research Fellow

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Main research fields:

Dr. Zeng's research interests are deep crustal melting and the deep processes of orogenic belts, the lithospheric geochemistry and geotectonic dynamics of the Qinghai-Tibet Plateau, basic magmatism, and mantle melting. He was selected as the Outstanding Youth of China by the National Natural Science Foundation and accepted into the National Talent (Special Branch) Program of the Ministry of Personnel. He has published more than 120 papers, over 40 of them as first author.

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Zhang Zeming, Research Fellow

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Main research fields:

With long-term research into basic geology, especially petrology, metamorphic geology, and metamorphic chemical dynamics, Dr. Zhang has made important advances in the study of ultrahigh-pressure metamorphism and fluid-rock interactions in continental orogenic belts. He has directed or participated in many research projects at the ministerial and national levels, and published 45 papers as first author in core journals, both nationally and internationally, 21 of which were SCI papers. His main research sites are China's central orogenic belt and the Qinghai-Tibet Plateau.



Zhu Xiangkun, Research Fellow

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Main research fields:

Dr. Zhu is mainly engaged in isotopic geochemistry and isotopic geochronology research, especially the application of isotope technology to the fields of mineral deposits, Precambrian sites and their environmental evolution, and the ancient marine environment. He is one of the main founders of non-traditional stable isotope geochemistry. He was granted an award from the National Outstanding Youth Fund. He is the Director of the Isotope Geological Specialized Committee under the Geological Society of China and the Director of the Key Laboratory of Isotope Geology of the Ministry of Natural Resources. He is also a member of the International Commission on Isotopic Abundances and Atomic Weights.



Brief Introduction of Advisors to MS Candinates

Du Lilin, Research Fellow

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Main research fields:

Precambrian geology is the main research interest of Dr. Du, particularly early Precambrian geology in North China. He has comprehensively explored the tectonic attributes of important geological events in the North China Craton with petrological, geochemical, and isotopic geochronological methods. He has directed and led projects funded by the China National Natural Science Foundation, the All China Commission of Stratigraphy, and the China Geological Survey. He has published more than 20 papers as first author, 12 of which were SCI papers.



He Zhenyu, Research Fellow

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Main research fields:

The main research fields of Dr. He are the petrogenesis of granites and magmatism, volcanic and volcanic magmatic evolution, crustal formation and evolution, rock geochemistry, zircon geochronology, and metamorphic petrology. His specific research interests are the complex formation of Cretaceous volcanic intrusions along the southeast coast of China, the tectonic evolution of southern China in the Mesozoic, granite genesis and magma mixing in the Gangdise belt of Tibet, the crustal composition and evolution of the ancient microcontinent in east Tianshan-Beishan in the Precambrian, and the crustal evolution of the Tarim Craton in the Precambrian. In 2012, he was selected for the 100 Geological Young Talents Training Program of the China Geological Survey.



Ji Shu'an, Research Fellow

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Main research fields:

Dr. Ji is engaged in the study of Mesozoic vertebrate fossils and their related stratigraphy. He is currently or has been responsible for three level-2 projects and six subprojects funded by the China Geological Survey, and two projects of the China National Natural Science Foundation. He has had a leading role in 10 provincial and national projects. He has published more than 90 papers, five of which were published in Nature or Science (one as first author).



Liu Chaohui, Research Fellow

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Main research fields:

Dr. Liu is mainly engaged in the study of the formation and evolution of early Precambrian geological bodies. His research focuses on the formation age, provenance, and tectonic background of the Proterozoic supracrustal rocks of the central orogenic belt in the North China Craton; the relationship between the provenance of the supracrustal rocks of the rift belt in the Middle Proterozoic in the North China Craton and the breakup of the Columbia supercontinent; and other key scientific issues. He was elected as an Excellent Youth of the China National Science Foundation.



Liu Dongliang, Research Fellow

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Main research fields:

In recent years, Dr. Liu has directed six projects and participated in many other projects funded by various departments. His main research field is the Qinghai-Tibet Plateau and its surrounding areas, including the Longmen Mountains at its eastern margin, the western Kunlun Pamirs in its northwest, and the Qiangtang region within the plateau. The research conducted at these sites includes the analysis of geological structures, paleomagnetism, low-temperature thermochronology, active tectonics, tectonic geomorphology, and earthquake geology. He has investigated the Cenozoic deformation and uplift events in the main basins and surrounding mountains at the northern margin of the Qinghai-Tibet Plateau, and demonstrated that the Wenchuan earthquake fault zone has experienced different earthquake slip mechanisms. In recent years, he has undertaken international cooperative projects and participated in mainstream international academic conferences in countries and regions such as France and the United States, acquiring rich experience in international cooperation and research. Since 2008, he has published over 10 papers as first author, including 7 SCI papers, and has co-authored more than 40 academic papers.



Liu Jianhui, Research Fellow

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Main research fields:

Dr. Liu studies uplift, denudation, tectonic deformation, and crustal formation and evolution mainly through by disciplines



of structural geology, low-temperature thermal geochronology, zircon U-Pb geochronology and Lu-Hf isotopes. He has published many papers in academic journals, both nationally and internationally.

Liu Jianfeng, Research Fellow

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Main research fields:

Dr. Liu is mainly involved in research into igneous rock petrology, geochemistry, and regional tectonics. In recent years, he has studied the tectonic framework and evolution of the Xingmeng orogenic belt and its adjacent areas. He has directed and participated in more than 10 projects funded by the China National Natural Science Foundation, the China Geological Survey, and the National Key Research and Development Fund. He has published 14 papers as first author, among which 7 were SCI papers.



Liu Yan, Research Fellow

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Main research fields:

Dr. Liu is engaged in the study of the deep geology of the lithosphere in mainland China and adjacent areas, especially in the Himalayan orogenic belt. At present, his research involves the study of geographic information systems (GIS) combined with traditional geology and geochemistry.



Lu Zhanwu, Research Fellow

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Main research fields:

The main research fields of Dr. Lu are deep geophysical exploration and geodynamics, especially using the deep seismic reflection profiling technique to determine lithospheric structure and geodynamic processes.

He has used deep seismic reflection profiling on the Qinghai-Tibet Plateau and in the middle and lower reaches of the Yangtze River region, and has made many important discoveries. He has directed one project of the National Key Research and Development Program, one project of the State Key Science and Technology Program, two projects of the China National Natural Science Foundation, one project of the Youth Foundation, two projects of the Key Laboratory Foundation of the Ministry of Education, and one project of the Fundamental Research Funds of the Institute of Geology. He has published many papers in academic journals, both nationally and internationally.



Song Biao, Research Fellow

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Main research fields:

Dr. Song is mainly involved in the study of the zircon U-Pb isotopic dating method and Precambrian geochronology, and also in laboratory management. He has worked with many researchers at home and abroad in zircon SHRIMP analyses and corresponding chronology research. Some of these research results have been published in high-level publications.



Tang Feng, Research Fellow

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Main research fields:

Dr. Tang is engaged in the study of early life and Precambrian to early Paleozoic stratigraphy. He has directed and participated in more than 10 national projects, published 60 academic works (including 40 SCI papers and domestic core papers as first author) and a number of popular scientific articles and reports. In 2007, he won a Second Class Scientific and Technological Award of the Ministry of Land and Resources. In 2008 and 2011, his most recent research results were selected among the Top Ten Progress in Science and Technology of the Chinese Academy of Geological Sciences, China Geological Survey.



Wang Haiyan, Research Fellow

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Main research fields:

Dr. Wang is a geophysicist who studies the structure of mantle and crust, and the type of tectonic deformation involved using seismic reflection and other geophysical data, and the tectonic evolution of structures and their dynamic mechanisms. In recent years, she has investigated deep seismic reflection profiles combined with other geophysical profiles and geological data, at the northeastern margin of the Qinghai-Tibetan Plateau, in the central orogenic belt, at the intersection between the northern and southern tectonic belt regions, and in southern China. She has directed three projects funded by the China National Natural Science Foundation, played a leading role in three key projects funded by the China National Natural Science Foundation, directed and participated in six projects funded by the China Geological Survey, participated as deputy director in one public industry special project of the Ministry of Land and Resources, and in other types of projects. She has published 19 papers as the first and corresponding author, including 8 SCI papers, and more than 40 papers as co-author.



Wang Yong, Research Fellow**Telephone: 010-68999683****Email: wangyong@cags.ac.cn****Main research fields:**

The main research fields of Dr. Wang are Quaternary geology and environmental research. He has successively directed and participated in more than 10 projects funded by the China National Natural Science Foundation, China Geological Survey and the National Stratigraphic Committee. In recent years, he has focused on environmental information from Quaternary stratigraphy and sedimentology, lake sediments and Quaternary environmental evolution, eolian deposits in northern China, the uplift of the Qinghai-Tibet Plateau and Cenozoic sedimentary tectonic evolution.



on the research on high-pressure and low-pressure granulite formation, metamorphic mineral zoning and related thermobarometric applications, phase equilibrium calculations and in situ EMPA monazite U-Th-Pb dating. In recent years, he has presided over and participated in more than 10 projects funded by the China National Natural Science Foundation and China Geological Survey.

Dong Chunyan,**Associate Research Fellow****Telephone: 010-68999761****Email: dongchunyan@sina.com****Main research fields:**

Dr. Dong's research is predominantly in early Precambrian geology and the zircon SHRIMP geochronology of the North China Craton. She focuses on the early Precambrian metamorphic basement and the zircon geochronology of the Inner Mongolian Daqingshan-Wulashan region. Her research experience is in Anshan, western Shandong Province, and eastern Hebei Province. She has published more than 40 papers, 11 as the first author, and 7 of them were SCI papers.

**Yang Conghui, Research Fellow****Telephone: 010-68990674****Email: xuxiangzhensjl@aliyun.com****Main research fields:**

Dr. Yang is mainly engaged in research in Precambrian geology, regional geological surveys, and minerals. In recent years, he has devoted his energies to the study of early Precambrian geological evolution and mineralization in the North China Craton.

**Dong Jin,****Associate Research Fellow****Telephone: 010-68999683****Email: djin@cags.ac.cn****Main research fields:**

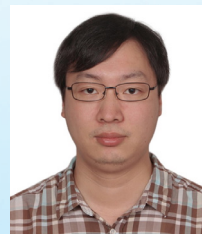
Dr. Dong is mainly engaged in the study of Quaternary geology and climate change, long-term changes in ancient geomagnetic fields, lake evolution, etc.. He effectively uses rock magnetism, magnetic stratigraphy, magnetic mineralogy and other methods to analyze Quaternary stratigraphy, sedimentary environments and climate change. He has undertaken a number of projects funded by the China National Natural Science Foundation, the China Geological Survey, and the Fundamental Scientific Research Fund of the Institute of Geology.

**Yu Changqing, Research Fellow****Telephone: 010-68997371****Email: geoyucq@qq.com****Main research fields:**

Dr. Yu is engaged in the processing, interpretation, and comprehensive study of geological and geophysical data, and hydrocarbon reservoir prediction and evaluation. He has directed and participated in more than 20 projects at the ministerial, provincial, and national levels, including the United Nations 029 Oil And Gas Special Project, the 863 Marine Special Project, the Sino-American Tibet INDEPTH-1 data processing, Wenchuan geophysical exploration research, a study of the deep physical inversion of the Tarim Basin, and many geological survey projects. He has won First and Second Class Scientific and Technological Awards at the ministerial and provincial levels, and published over 30 papers.

**Guo Lei,****Associate Research Fellow****Email: guolei@cags.ac.cn****Main research fields:**

Dr. Guo's main research areas are structural geology, medium- and small-scale structures, and microstructures. His current research directions and areas include Mesozoic crust deformation and magmatism in northeast Asia; metamorphic nuclear complex/Qianlong structure; and three-dimensional deformation. His main research techniques include constructing maps on various scales, combining geophysical exploration with magmatic research, establishing tectonic deformation sequences, and three-dimensional geological modeling and ore prediction in important orogenic belts and ore districts.

**Zhou Xiwen, Research Fellow****Telephone: 010-68999720****Email: xwzhou@cags.ac.cn****Main research fields:**

Dr. Zhou's research mainly involves in the research on the formation and evolution of the Precambrian metamorphic basement. He focuses



He has successfully undertaken more than 10 projects, including projects funded by the National Natural Science Foundation of China, a deep resource exploitation project funded by the Ministry of Science and Technology, and the National Land Resources Survey Project. He has published more than 10 academic papers at home and abroad, as first and corresponding author. He has won one first prize in Science and Technology Award of the Ministry of Land and Resources, and one first prize for achievements in the Science and Technology Achievement Awards of the China Geological Survey.

Jia Jianliang,

Associate Research Fellow

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Main research fields:

The main research areas of Dr. Jia are petroleum geology and sedimentary geochemistry. He is mainly engaged in the study of fine-grained sedimentation and petroleum geology, including the mechanisms of organic carbon burial and enrichment, exploration for and evaluation of oil and gas resources, and the mud shale logging response mechanism. His main research sites are the Mesozoic hydrocarbon-bearing sedimentary basins in north China and the Carboniferous–Permian sedimentary strata in north China. He has successfully undertaken two National Natural Science Foundation Projects, two China Postdoctoral Science Foundation Projects, three Geological Survey Projects, and four basic scientific research projects. His achievements include having won an award for the most outstanding doctoral thesis in Jilin Province, first prize in the Jilin Province Science and Technology Award, first prize in the Science and Technology Progress Awards of the China Petroleum and Chemical Industry Federation, and the May 4th Young Geologist Prize of Jilin University. He also received OeAD funding from the Austrian Government to study abroad. Dr. Jia has published 12 academic papers as first author, in core journals at home and abroad, among which 5 were SCI papers and 5 were EI papers.



Li Shan,

Associate Research Fellow

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Main research fields:

The main research areas of Dr. Li include the Central Asia orogenic belt, Tethys magmatism, and lithospheric evolution. From the perspective of magmatic rocks (specifically granite), he has explored and solved problems in geotectonics and studied its physical properties (tectonics), material composition (rock geochemistry), and three major aspects of the age. His specific research topics include: (1) granite structures, including magma ascent and migration, and the localization and formation/construction of rock masses (belts); (2) granite sources, crust growth, and orogenic processes, establishing orogenic processes and the growth and evolution of the



continental crust by determining the origins and provenance of granites; (3) the development processes of granite belts, the convergence of continents, and the magmatic response to continent breakup and dispersal. He has published more than 30 scientific research articles, including more than 16 SCI papers (12 as first author). As the backbone of science and technology, he won first prize for Science and Technology from the Ministry of Land and Resources, and first prize for Scientific and Technological Achievements of the China Geological Survey.

Liu Pinghua,

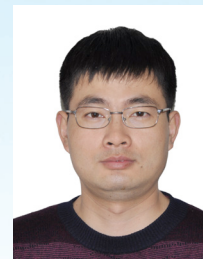
Associate Research Fellow

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Main research fields:

Dr. Liu is mainly engaged in Precambrian geology and metamorphic petrology research.



He has directed and participated in more than 10 projects funded by the China Natural Science Foundation, and subprojects of the 973 Program and the China Geological Survey. At present, he is studying early Precambrian high-pressure granulites and their structural controls in the North China Craton. In recent years, he has published more than 40 academic papers, among which 11 were as first author.

Liu Yan,

Associate Research Fellow

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Main research fields:

The main research fields of Dr. Liu include the mineralogical characteristics and genesis



mechanisms of rare earth deposits and rare metal deposits; the evolution of syenite and carbonatite, and the mineralization of rare earth deposits; leucogranite evolution and rare metal mineralization and alteration, and the mineralization of magnesian skarn. He has developed two enrichment processes for carbonate-type rare earth elements from the rare-earth deposits in western Sichuan Province. He has summarized the mineralization process and mechanism of the highly fractionated granites in W–Sn–Be in mineral deposits at Xubaoding, Sichuan Province. He has analyzed the petrogenesis and mineralization process of the magnesian skarn of West Kunlun and proposed the controlling mechanism of its formation. Dr. Liu has published 14 international SCI papers as first author. His doctoral dissertation was rated as an Excellent Doctoral Dissertation in Beijing (2011), and he was granted Special Funding for the Fifth Batch of Postdoctoral Fellows. He was selected to participate in the Elite Program of the China Geological Survey.



Liu Yingchao,
Associate Research Fellow
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Main research fields:

Dr. Liu is engaged in research into lead–zinc deposits formed during collisional orogenic processes, especially the genesis of sedimentary lead–zinc deposits and the regional metallogenic patterns of the Tethys giant lead–zinc metallogenic belt. Her research sites predominantly include the Sanjiang orogenic belt of the Qinghai–Tibet Plateau and the Zagros orogenic belt to its west. She has directed and participated in over 10 projects of the China Natural Science Foundation, subprojects of the 973 Program, special project on deep Earth exploration and projects funded by the China Geological Survey. In recent years, she has won one First Class Scientific and Technological Award of the Ministry of Land and Resources, and published more than 50 academic papers, among which, 16 papers were as first and corresponding author.



Lu Haijian,
Associate Research Fellow
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Main research fields:

For more than a decade, Dr. Lu has been working on the Cenozoic tectonic–sedimentary evolution of the Qinghai–Tibet Plateau. His research interests focus on three areas: (1) The timing, method, and mechanism of the Neozoic India–Eurasia plate collision and the structural response of the northern Tibetan Plateau. His research methods include sedimentology, magnetic stratigraphy, rock magnetism, etc. (2) The strike–slip effect of large-scale fault zones (Altun, East Kunlun, and Haiyuan fault zones) and the plateau uplift mechanism on the northern Tibetan Plateau, based on paleomagnetism. Learning and tectonic rotation; (3) Lithospheric convective dredging and plateau uplift in the central Qinghai–Tibet Plateau. The main research methods used are low-temperature thermochronology and isotope algebra. At present, Dr. Lu is undertaking two projects of the National Natural Science Foundation of China. He has published more than 30 academic papers at home and abroad, among which he was first author on 5 SCI papers and 4 core journal articles.



Meng En,
Associate Research Fellow
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Main research fields:

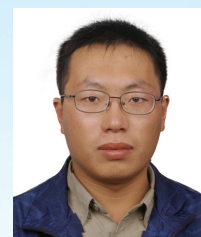
Dr. Meng majored in petrology and geochemistry and is mainly



engaged in the study of Precambrian geology and the genesis of Phanerozoic igneous rocks. He has directed and participated in over 10 scientific research projects funded by the Natural Science Youth Fund and the China Geological Survey. In recent years, his research has focused on the origin and tectonic evolution of the Precambrian geological bodies in northeast China. He has published more than 50 academic papers nationally and internationally, being first or correspondent author on 19 SCI papers.

Pan Jiawei,
Associate Research Fellow
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Main research fields:

Dr. Pan's main research fields are lithology and geochemistry, and he specializes in the study of active tectonics and tectonic geomorphology. He mainly investigates the quantitative kinematic characteristics and seismicity of active faults in the areas of Altun, West Kunlun, and Pamir in the northern part of the Qinghai–Tibet Plateau. In the past 2 years, he has undertaken studies of active faults in the hinterland of the Qinghai–Tibet Plateau, in the Qintang region. He was successively awarded two projects of the National Natural Science Foundation of China, and two basic scientific research projects of the Institute of Geology of the Chinese Academy of Geological Sciences. He has participated in many projects of the National Natural Science Foundation of China, the Ministry of Science and Technology, and the China Geological Survey. He has published nine papers as first author, including two international SCI papers.



Pan Xiaofei,
Associate Research Fellow
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Main research fields:

Dr. Pan's main research fields are mineralogy, petrology, and mineral deposits. Her research directions in recent years have included tungsten ore mineralization in South China, porphyry copper mineralization, rock mass geochemistry related to mineralization, fluid inclusions, stable isotopes, etc. She has demonstrated the geochemical characteristics of ore-forming rock masses and the mechanisms of fluid control on mineralization in porphyry deposits in the South China territories. She has analyzed metallogenic epochs, the geochemical characteristics of ore-forming rocks, and the newly discovered ultra-large tungsten–copper ore deposits in northeastern Jiangxi. Her main site of research into mineralization mechanisms is South China. Dr. Pan successfully undertook the 12th Five-Year National Support Project, a National Industry Fund Project, a Young Natural Science Fund Project, and a National Geological and Mineral Survey and Evaluation Project. She has published 28 papers in core journals, both nationally and internationally.



Qu Junfeng,
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Main research fields:

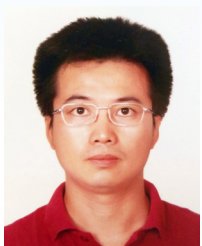
The main research fields of Dr. Qu are petrology, metamorphism and the evolution of metamorphic rocks, and their relationship to the evolution of orogenic belts and regional geology. He has directed and participated in five projects funded by the China National Natural Science Foundation, more than 10 projects funded by the China Geological Survey, one project of the 973 Program, and a number of other projects. His extensive research interests include Precambrian metamorphic basement, metamorphic evolution, calculation of the equilibrium of metamorphic rock facies, the metamorphic evolution and tectonics of the western Kunlun orogenic belt, and the central Asian orogenic belt. At present, his main research sites are Xinjiang Province, the western Kunlun Mountains, southern China, the Provinces of Zhejiang, Fujian and Jiangxi, and the Alxa region.



Tian Zhonghua,
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Main research fields:

Dr. Tian is involved in fundamental theoretical studies of structural geology: folds, superimposed folds, faults and fault-related folds, foreland folds, and thrust belts and the restoration of their equilibrium profiles; tectonic deformation and metamorphism; tectonics; ophiolites, accretionary wedges and their hyperplastic orogeny belts, and the tectonic evolution of collisional orogenic belts; tectonic activity and mineralization. His main research sites are the Central Asian Orogenic Belt, the Tianshan–Beishan area; the Tethys structural area, Pamir–Tashkulan–West Kunlun area; the North China Craton; and the Gum–Liao–Ji Orogenic Belt, Jiaodong–Liaodong–Jilin southern region. His main research methods include field geological mapping and basic laboratory experiments. He has successfully undertaken one National Youth Science Fund project, one secondary project of a Geological Survey Project of the China Geological Survey, one basic scientific research projects of the Institute of Geology of the Chinese Academy of Geological Sciences, and several key funds. He has published nine papers as first author in core journals at home and abroad, including seven international SCI papers and two papers in Journal of Structural Geology.



Wang Tao,
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Main research fields:

Dr. Wang is engaged in the study of orogenic belt sedimentation,



accretionary complexes, and regional tectonic evolution. His study sites mainly include the Qinling Mountains, Qilian, and the Qin Hangzhou boundary belt. He has directed and participated in a number of national projects, and published many papers in both national and international academic journals.

Wang Wei,
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Main research fields:

Dr. Wang's main research interests are early Cambrian geology, geochemistry, isotopic geochemistry, and Archean crustal evolution. His research directions include the formation, activation, and stabilization of the Archean continental crust of the North China Craton; the metamorphism and deep melting of Archean oceanic crust; and the redistribution of elements and isotopes during metamorphism and deep melting. Based on Archean case studies of the eastern North China Craton, such as at Luxi, Jiaodong, and Liaoji, Dr. Wang confirmed that there exists a combination of high-titanium and low-titanium basalts in the Early Archean in the North China Craton, and that their geochemical characteristics and evolutionary trends are in the same period of the world. Other combinations within the greenstone belt can be compared. The properties of metamorphosed late Neoproterozoic volcanic rocks evolved from the Koma to the Ca-alkali. Dr. Wang has been awarded four basic scientific research grants from the National Natural Science Foundation of China and the Chinese Academy of Geological Sciences. He has published six international SCI papers as first author.



Wang Xuri,
Associate Research Fellow
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Main research fields:

Dr. Wang has long been engaged in research into Cretaceous fossils of dinosaurs and ancient birds. His main research areas are the classification and evolution of the Jehol biota and small theropod dinosaurs. In recent years, he has classified and correlated the late Paleozoic strata in the Songliao Basin. At present, Dr. Wang is conducting two third-level (subsidiary) projects of the China Geological Survey, and has completed two basic scientific research projects. He has participated in one national “973” project of the Ministry of Science and Technology, and six other national and provincial-level projects.



He has published more than 30 academic papers and two monographs, including eight as first author, two as corresponding author, and one monograph was co-authored with the first deputy editor. He has won the Excellent Science Book Award from the Ministry of Land and Resources, one first prize in the Beijing Science and Technology Awards, and one first prize in the Dalian Science and Technology Progress Awards.

Xie Hangqiang,

Associate Research Fellow

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Main research fields:

The main research fields of Dr. Xie are geochronology, Precambrian geology, crust formation, growth, and evolution, and petrological geochemistry. His specific research involves the growth and evolution of Archean crust in the North China Craton (mainly in Shandong Province, eastern Hebei Province, and the Anshan–Benxi area), zircon U–Pb dating and genesis, and the crustal evolution of the South Africa Kaapvaal Craton in the early Archaean. He has undertaken projects funded by the China National Natural Science Foundation, the China Geological Survey, and State Key Instrumental Projects.



Xu Qinqin,

Associate Research Fellow

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Main research fields:

Dr. Xu's main fields of research are geotectonic and tectonic geomorphology. In recent years, she has studied the tectonic evolution of northern Xinjiang, Tethys, and the Yarlung Zangbo Grand Canyon and the evolution of the hydrological system in southeastern Tibet.



Xu Xiangzhen,

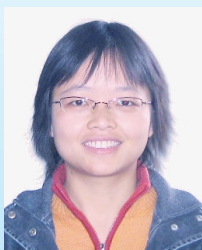
Associate Research Fellow

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Main research fields:

Dr. Xu is mainly engaged in mantle rock and deep mineral research. She has undertaken projects funded by the China National Natural Science Foundation, the China Geological Survey and the Fundamental Research Fund of the Institute of Geology. In recent years, she has published more than 10 academic papers in core academic journals at home and abroad.



Yin Jiyuan,

Associate Research Fellow

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Main research fields:

Dr. Yin's research interests are rock geochemistry and low-temperature thermal chronology. His main research directions are: (1) magmatic and crustal growth in the Junggar orogenic belt; (2) the exhumation–uplift history of the Tianshan and western Junggar metamorphic belts in China; and (3) the history of Cenozoic magmatism and exhumation in the West Kunlun Mountains. He has participated in projects funded by the China Scholarship Council, the China National Natural Science Foundation (both youth and international/ regional cooperative and exchange projects), public industry special projects of the Ministry of Land and Resources, the China Postdoctoral Foundation, the 973 Program, the China Geological Survey projects, etc. He has published over 20 papers as first author in GR, Lithos, Tectonophysics, JAES, IGR, and Journal of Rock, and other domestic and foreign academic journals. These included nine international SCI papers, two national SCI papers, and three national EI papers. He has also published many co-authored papers, which have been cited more than 250 times.



You Guoqing,

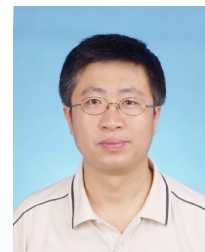
Associate Research Fellow

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Main research fields:

Dr. You is mainly engaged in regional geological research, mapping, and oil and gas geological research in sedimentary basins. He has directed many projects funded by the National Major Scientific and Technological Fund and the China Geological Survey, and industry special projects. At present, he is focusing on the study of plate geology, plate tectonic evolution and energy resources.



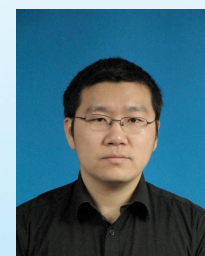
Zhang Cong,

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Main research fields:

Dr. Zhang's research is mainly in orogenic petrology and metamorphic geology. He focuses on the study of petrology, metamorphic equilibrium, and the secondary mineral dating of eclogite, pomegranate peridotite, high-pressure granulite, and related surrounding rocks in the ultrahigh-pressure metamorphic belt of the Qinghai–Tibet Plateau and the Qaidam margin. In recent years, he has published 14 papers as first and corresponding author in domestic and foreign core journals, including seven SCI papers, and has co-authored two monographs.



Zhang Hongrui,
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Main research fields:

Dr. Zhang is mainly engaged in research into the tectonic evolution and mineralization of the Tethys. His study focuses on the tectonic evolution of the Sanjiang Tethys, collisional deformation and its control on Pb–Zn–Cu–Au mineralization, mineralization related to the Himalayan Jager Ross collision, and other key scientific issues.



Zhao Lei,
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Main research fields:

The main research fields of Dr. Zhao are the tectonics of northern Xinjiang and its adjacent area, and the integrated use of a variety of stratigraphic, sedimentological, structural geological, geochronological, and geochemical methods to clarify the nature of these tectonic belts. He is dividing and comparing the tectonic units and evolution stages of northern Xinjiang and its adjacent region.

