

CHINA-AUSTRALIA GEOLOGICAL STORAGE OF CO₂ (CAGS) PROJECT GEOLOGICAL STORAGE OF CO₂ TRAINING SCHOOL II



HOSTS

MINISTRY OF SCIENCE AND TECHNOLOGY, P.R.CHINA
THE ADMINISTRATIVE CENTRE FOR CHINA'S AGENDA 21
DEPARTMENT OF INDUSTRY, AUSTRALIA
GEOSCIENCE AUSTRALIA

ORGANIZER

PRODUCTIVITY CENTRE OF JIANGSU PROVINCE

14-17 MAY, 2014

NANJING, JIANGSU PROVINCE, CHINA



ABOUT NANJING

Nanjing, an ancient capital of China, is the capital of Jiangsu Province with the total area of 6598 square kilometers, including 4728 square kilometers as urban area, and its total population is 10.127 million.

Nanjing is located in the Yangtze River Delta. With history of over 6,000 years, Nanjing has become a famous historical and cultural city since it was established 2,500 years ago. In addition to historical sights, its memorials, museums and cultural sights also attract thousands of visitors. The famous Confucius Temple (Fuzimiao) is not only a memorial place for the Great Sage but has a surrounding area bustling with shops, restaurants and a snack street housed in traditional architectural buildings. In the city center, Nanjing Museum is a must-go spot for visitors with a collection of more than 420 thousand pieces, including about 2,000 that are rare and valued. The Zijinshan Observatory (Purple Mountain Observatory) to the east of the city center was the first modern observatory built in China. Qinhuai River, in the southwest of the city, extends one hundred kilometers. Lush greenery cascades over sweeping hills and mountains. Waterways serpentine through the city of steel and glass. Nanjing, this city of dreams and imperial artistry blossoms like a lotus flower floating along a river oblivious to the outside world.



ABOUT HANYUAN MANSION

翰苑大厦简介

Han Yuan Hotel lies in the eastern scenic spot of Nanjing, an ancient capital of 6 dynasties, China, with Purple Mountain (Zijin Shan) in its back and Yueya Lake in its front, enjoying picturesque Zhongshan Ling (Sun Yat-sen's Tomb) and blue water moat in fascinating scenery and charming ambience. The Hotel, constructed in accordance with 4 star standard and backed up by the International Center of Science and Technology Exchange of Nanjing Agriculture University, serves outward to Chinese and foreign guests, as well as conference gathering.

The Hotel, a 14 story building of 24,000 square meters, is conveniently located at the intersection of Houbiaoying Road and Tongwei Road in the east of Nanjing, 40 minutes to Lukou Airport by car, 20 minutes to Nanjing Railway Station, and 2 minutes to Nanjing-Shanghai Expressway.



Address: No.20 Tongwei Road, Nanjing, Jiangsu, China

Postcode: 210095

Tel.: **025-84393988**



地址：南京童卫路 20 号

邮编：210095

酒店专线： **025-84393988**

南京农业大学学术交流中心（翰苑大厦）位于六朝古都南京东郊风景区，背枕紫金山，面眺月牙湖。中山陵风景瑰丽，护城河碧波荡舟，风光旖旎，环境宜人。翰苑大厦是南京农业大学以国际科学技术交流中心为依托、按照四星级标准建设的酒店，面向社会接待国内外宾客和会议团体。

翰苑大厦建筑面积 24000 平方米，高十四层，地处南京城东后标营路与童卫路交汇处，交通便利，距禄口机场 40 分钟车程，距火车站 20 分钟车程，距沪宁高速入口 2 分钟车程。

PROGRAM

Day 1 May 14 Lobby	14:00-17:00	Registration	
Day 2 May 15 Chamber on Level 6	Opening Ceremony Host: Li Jia		
	9:00-9:30	Jiutian Zhang, <i>The Administrative Centre for China's Agenda 21</i> Andrew Barrett, <i>Geoscience Australia</i> Qingru Meng, <i>Productivity Centre of Jiangsu Province</i>	
	9:30-9:40	Group Photo	
	Session 1: Overview of CCUS Chair: Andrew Barrett		
	9:40-10:10	Global Status of CCS Projects	Qianguo Lin, <i>Global CCS Institute, China</i>
	10:10-10:40	Morning Tea	
	10:40-11:10	Carbon Capture and Geological Storage – An Overview	Rick Causebrook, <i>Australian National Low Emissions Research and Development (ANLECRD)</i>
	11:10-11:30	CO ₂ Geological Utilization Technologies	Danqing Liu, <i>China University of Geosciences (Wuhan)</i>
	11:30-12:00	Group Discussion	
	12:00-14:00	Lunch at Western Restaurant on Level 1	
	Session 2: Onshore and Offshore Geological Storage and Capacity Assessment Chair: Qi Li		
	14:00-14:30	Storage Capacity Estimation Issues and Methodologies for Saline Reservoirs	Rick Causebrook, <i>ANLECRD</i>
	14:30-15:00	The Index System of CO ₂ Geological Storage Site Selection in China	Xiaofeng Jia, <i>Center for Hydrogeology and Environmental, China Geological Survey</i>
	15:00-15:30	Afternoon Tea	
	15:30-16:00	Numerical Modeling of Geological Storage	Jonathan Ennis-King, <i>Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia</i>
	16:00-16:30	Preliminary Study of Xinjiang Carbon Dioxide Capture, Utilization and Storage (CCUS) Technology Roadmap	Qingsan Shi, <i>Xinjiang University</i>
	16:30-17:00	Group Discussion	
	17:00-17:20	Group Summary	
	18:00-20:00	Reception Dinner at ZiJing Hall on Level 3 of Hanyuan Mansion	



Day 3 May 16 Chamber on Level 6	Session 3: Risk Assessment and Monitoring Chair:Rick Causebrook		
	9:00-9:30	Environmental Risk Assessment of CO ₂ Geological Storage: A State-of-the-art Survey	Qi Li, <i>Institute of Rock and Soil Mechanics, CAS</i>
	9:30-10:00	Risk Assessment in CCS	Andy Nicol, <i>GNS Science, New Zealand</i>
	10:00-10:30	Morning Tea	
	10:30-11:00	Monitoring for CO ₂ Storage	Andrew Barrett, <i>Geoscience Australia</i>
	11:00-11:30	Site Specific Monitoring Design	Susan Hovorka, <i>University of Texas at Austin, USA</i>
	11:30-12:10	Group Discussion	
	12:10-12:30	Group Summary	
	12:30-14:00	<i>Lunch at Western Restaurant on Level 1</i>	
	Session 4: CCS Social and Economic Issues Chair: Qingsan Shi		
	14:00-14:20	The Capacity Building on CCUS in China	Li Jia, <i>The Administrative Centre for China's Agenda 21</i>
	14:20-14:50	Social Issues in CCS: Working with the Community	Roy Anderson, <i>Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC), Australia</i>
	14:50-15:20	Afternoon Tea	
	15:20-15:50	A Guide to Impacts of PotentialLeaks from CO ₂ Storage	Jonathan Pearce, <i>British Geological Survey</i>
	15:50-16:20	Economics of CCS	Gustavo Fimbres Weihs, <i>University of New South Wales, Australia</i>
	16:20-17:00	Group Discussion	
	17:00-17:20	Group Summary	
	17:30-19:30	<i>Dinner at Western Restaurant on Level 1</i>	

Day 4 May 17 Chamber on Level 6	Session 5: CCS Projects Chair: Andy Nicol		
	9:00-9:30	Field Demonstration of CO ₂ Storage in the CO ₂ CRC Otway Project	Jonathan Ennis-King, <i>CSIRO</i>
	9:30-10:00	US Geologic Storage Projects with Examples from Gulf Coast Carbon Center Research	Susan Hovorka, <i>University of Texas at Austin, USA</i>
	10:00-10:30	Morning Tea	
	10:30-10:50	Dry-run Storage Permit Applications Learned from the Perspective of Operators and Regulators	Jonathan Pearce, <i>British Geological Survey</i>
	10:50-11:30	Group Discussion	
	11:30-11:50	Group Summary	
	11:50-12:10	Closing Remarks	
	12:10-14:00	<i>Lunch at Western Restaurant on Level 1</i>	



TIPS

注意事项

1. Your badge is the only pass at this event. Please wear it throughout the course. If it is lost, please contact with the Secretariat.
 2. Please make sure that your mobile phone is switched off or muted during the training. Do not make/answer phone calls in the conference room.
 3. Smoking is not allowed in the conference room.
 4. Please carry valuables and pay attention to your safety.
 5. Please check out before 15:00 on May.17th, and if your agenda will be changed or you need check out earlier, please contact the secretariat at first, and give the key back to the Check-in Desk of Hanyuan Mansion.
 6. After the meeting, please express the tickets to Productivity Centre of Jiangsu Province (Address: No. 175 Longpan road Nanjing, TEL: 025-85485857, Name: Jiarong Qian).
- Time: Breakfast: 7:00-9:00
Lunch: 12:00-13:00
Dinner: 18:00-19:00
7. Secretariat:
- Yiming Cheng (Cars) 15951898639
Jiarong Qian (Tickets) 13770944868
Pingting Zhen (Check-in/out, Meals) 18061200638
Jieming Xu (Coordination) 13338624190

1. 参会卡是参加本次培训班的凭证。请随身携带，如果遗失，请与会务组联系。
2. 会议期间请关闭手机或调至静音状态，不要在会议室 / 接听电话。
3. 会场禁止吸烟。
4. 请随身携带的贵重物品，并注意安全。
5. 请于5月17日 15:00前办理退房手续，如果您的行程改变需要提前退房，请联系会务组，并把房卡退还翰苑大厦总台。
6. 会议结束后，请参会学员将回程飞机票或者是火车票邮寄到江苏省生产力促进中心（地址：南京市龙蟠路175号，电话：025-85485857，联系人：钱家蓉）。

用餐时间：早餐：7:00-9:00
午餐：12:00-13:00
晚餐：18:00-19:00

7. 会务组：

程一鸣（车辆接送、现场服务）15951898639
钱家蓉（票务）13770944868
郑婷婷（住宿、用餐）18061200638
徐杰明（总协调）13338624190

ABOUT THE TRAINING SCHOOL

Background of CAGS

The China Australia Geological Storage of CO₂ (CAGS) Project is a bilateral project that focuses on increasing China and Australia's capacity and capability in the area of geological storage of CO₂. The project combines research with capacity building and training programs. CAGS was initially developed under the Asia Pacific Partnership through the Cleaner Fossil Energy Task Force. The second phase of CAGS is being funded through the Australia-China Joint Coordination Group on Clean Coal Technology. CAGS aims to complement and collaborate with other geological storage programs in China.

Objectives of the training school

The training school is planned for outstanding young researchers and graduate students in China. The goal of the training school is to improve their scientific understanding of CO₂ geological storage, and also to help them to engage in the field of CO₂ geological storage in future.

Themes of the training school:

- (1) Overview of CO₂ Capture, Utilization and Storage (CCUS)
- (2) Onshore and Offshore Geological Storage and Capacity Assessment
- (3) Risk Assessment and Monitoring
- (4) CCS Social and Economic Issues
- (5) CCS Projects

The training school will be composed of presentations and group discussions, which will be led by international experts. Students will freely discuss on the interesting CCUS topics. Raising questions will be welcome.

Language

The language of the training school is English. If you are not a native English speaker, this will be a good opportunity for you to practice English.



LIST OF PARTICIPANTS

Full Name	Position	Organisation
Sizhen Peng	Deputy Director General	The Administrative Centre for China's Agenda 21
Jiutian Zhang	Director	The Administrative Centre for China's Agenda 21
Li Jia	Senior Engineer	The Administrative Centre for China's Agenda 21
Qingru Meng	Vice Director	Productivity Centre of Jiangsu Province
Qi Li	Professor	Institute of Rock and Soil Mechanics, CAS
Qingsan Shi	Director/Associate Professor	Xinjiang University
Xiaofeng Jia	Intermediate Engineer	Center For Hydrogeology and Environmental Geology Survey, CGS
Andrew Barrett	Energy Advice Group Leader	Geoscience Australia
Liling Huang	Project Manager	Geoscience Australia
Jessica Peihong Gurney	Project Manager	Geoscience Australia
Richard Moulton Causebrook	Geological Consultant	Australian National Low Emissions Coal Research & Development
Roy Anderson	Education and Training Manager	Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC)
Jonathan Ennis-King	Senior Research Scientist	CSIRO/CO2CRC
Gustavo Adolfo Fimbres Weihs	Research Associate	The University of New South Wales
Andrew Nicol	Geoscientist	GNS Science, New Zealand
Jonathan M Pearce		British Geological Survey
Susan Hovorka	Senior Research Scientist	The University of Texas at Austin

Full Name	Position	Organisation
Quan Chen	Research Assistant	Institute of Rock and Soil Mechanics, CAS
Yani Wei	Research Assistant	Institute of Rock and Soil Mechanics, CAS
Zhengao Chen	Research Assistant	Institute of Rock and Soil Mechanics, CAS
Dongqin Kuang	Research Assistant	Institute of Rock and Soil Mechanics, CAS
Ranran Song	Graduate Student	Institute of Rock and Soil Mechanics, CAS
Shi Hui	Graduate Student	Institute of Rock and Soil Mechanics, CAS
Haiqing Wu	Graduate Student	Institute of Rock and Soil Mechanics, CAS
Xiaojiang Liu	Associate Professor	Xinjiang University
Dilixiati Maimaiti	Associate Professor	Xinjiang University
Yi Liu	Graduate Student	Xinjiang University
Qingli Cao	Graduate Student	Xinjiang University
Longyang Dou	Graduate Student	Xinjiang University
Wenhui Yang	Graduate Student	Xinjiang University
Yu Jiang	Graduate Student	China University of Geosciences(Wuhan)
Yu Lu	Graduate Student	China University of Geosciences(Wuhan)
Danqing Liu	Graduate Student	China University of Geosciences(Wuhan)



LISTS FOR GROUP DISCUSSION

Group 1

Full Name	Position	Organisation
Mei Liu	Research Fellow	China National Institute of Standardization
Jijiao Fan	Senior Engineer	Center For Hydrogeology and Environmental Geology Survey, CGS
Chunwei Zhang	Graduate Student	Tsinghua University
Chaobin Guo	Graduate Student	Beijing Normal
Zhiyang Wang	Graduate Student	China University of Mining and Technology (XuZhou)
Haiyan Zhang	Graduate Student	Nanjing University
Yaqian Ning	Graduate Student	Zhejiang University
Yuanqiang Duan	Graduate Student	Southeast University
Zhongzheng Zhang	Research Assistant	Shanghai Advanced Research Institute, CAS
Yangsheng Zhu	Research Assistant	Shanghai Advanced Research Institute, CAS
Xinqing Chen	Research Assistant	Shanghai Advanced Research Institute, CAS
Tingting Wang	Graduate Student	East China University of Science and Technology
Yuanhui Li	Graduate Student	East China University of Science and Technology
Shaoxing Mo	Graduate Student	Nanjing University
Guiju Li	Associate Professo	Wuhan Documentation and Information Center, CAS

Name	Gender	Position	Organisation	Instructors
Quan Chen	Male	Research Assistant	Institute of Rock and Soil Mechanics, CAS	Session 1: Rick Causebrook Session 2: Andy Nicol Session 3: Andrew Barrett Session 4: Gustavo Fimbres Weihs Session 5: Danqing Liu
Yani Wei	Female	Research Assistant	Institute of Rock and Soil Mechanics, CAS	
Xiaojiang Liu	Male	Associate Professor	Xinjiang University	
Qingli Cao	Male	Graduate Student	Xinjiang University	
Yu Jiang	Female	Graduate Student	China University of Geosciences (Wuhan)	
Mei Liu	Female	Research Assistant	China National Institute of Standardization	
Chaobin Guo	Male	Graduate Student	Beijing Normal University	
Yaqian Ning	Female	Graduate Student	Zhejiang University	
Yangsheng Zhu	Male	Research Assistant	Shanghai Advanced Research Institute, CAS	
Shaoxing Mo	Male	Graduate Student	Nanjing University	



Group 2

Name	Gender	Position	Organisation	Instructors
Zhengao Chen	Female	Research Assistant	Institute of Rock and Soil Mechanics, CAS	<p>Session 1: Roy Anderson</p> <p>Session 2: Xiaofeng Jia</p> <p>Session 3: Jonathan Ennis-King</p> <p>Session 4: Li Jia</p> <p>Session 5: Susan Hovorka</p>
Dongqin Kuang	Female	Research Assistant	Institute of Rock and Soil Mechanics, CAS	
Dilixiati Maimaiti	Male	Associate Professor	Xinjiang University	
Yi Liu	Male	Graduate Student	Xinjiang University	
Yu Lu	Female	Graduate Student	China University of Geosciences (Wuhan)	
Jijiao Fan	Female	Senior Engineer	Center For Hydrogeology and Environmental Geology Survey, CGS	
Zhiyang Wang	Male	Graduate Student	China University of Mining and Technology (XuZhou)	
Yuanqiang Duan	Male	Graduate Student	Southeast University	
Xinqing Chen	Male	Research Assistant	Shanghai Advanced Research Institute, CAS	
Guiju Li	Female	Associate Professor	Wuhan Documentation and Information Center, CAS	

Group 3

Name	Gender	Position	Organisation	Instructors
Ranran Song	Male	Graduate Student	Institute of Rock and Soil Mechanics, CAS	<p>Session 1: Qianguo Lin</p> <p>Session 2: Qingsan Shi</p> <p>Session 3: Jonathan Pearce</p> <p>Session 4: Qi Li</p> <p>Session 5: Rick Causebrook</p>
Shi Hui	Female	Graduate Student	Institute of Rock and Soil Mechanics, CAS	
Longyang Dou	Female	Graduate Student	Xinjiang University	
Wenhui Yang	Female	Graduate Student	Xinjiang University	
Chunwei Zhang	Male	Graduate Student	Tsinghua University	
Haiyan Zhang	Female	Graduate Student	Nanjing University	
Zhongzheng Zhang	Male	Research Assistant	Shanghai Advanced Research Institute, CAS	
Haiqing Wu	Male	Graduate Student	Institute of Rock and Soil Mechanics, CAS	
Tingting Wang	Female	Graduate Student	East China University of Science and Technology	
Yuanhui Li	Female	Graduate Student	East China University of Science and Technology	

