



China Australia Geological Storage of CO<sub>2</sub>  
中澳二氧化碳地质封存



# Aquifer Storage of CO<sub>2</sub>

## Workshop

26<sup>th</sup> - 29<sup>th</sup> October 2010

Wuhan, Hubei, China

- Hosts:** Department of Social Development, Ministry of Science and Technology, P. R. China  
The Administrative Center for China's Agenda 21  
Geoscience Australia
- Organizer:** Institute of Rock and Soil mechanics, Chinese Academy of Sciences





## CAGS Workshop Two: Aquifer Storage of CO<sub>2</sub>

26<sup>th</sup> - 29<sup>th</sup> October 2010

**Hosts:** Department of Social Development, Ministry of Science and Technology, P. R. China;  
The Administrative Center for China's Agenda 21;  
Geoscience Australia

**Organizer:** Institute of Rock and Soil mechanics, Chinese Academy of Sciences

**Subject:** Improving capability of China for CO<sub>2</sub> aquifer storage

**Aims:** Communicating the latest progresses and trends in the field of CO<sub>2</sub> aquifer storage and accelerating the collaboration between Australia and China

**Conference topics:**

1. Potentials, current status and challenges
2. Theory and modeling of CO<sub>2</sub> aquifer storage
3. Site characterization and selection
4. Safety assessment and monitoring technology
5. Social issues and demonstration projects

**Location:** Donghu Hotel, Wuhan, Hubei, China



### Program

Oct. 26	8:00-18:00 <b>Registration</b>	
	Location: Baihua Erhao, Donghu Hotel	
Oct. 27	19:30-21:00 <b>Reception Dinner</b>	
	Location: Nanshan Yisuo, Donghu Hotel	
<b>Session 1: Potentials, current status and challenges</b>		
<b>Time:</b> 09:00-12:10		
<b>Location:</b> Sanxia Meeting Room, Baihua Erhao, Donghu Hotel		
<b>Chair:</b> Dr Jiutian Zhang		
9:00-9:25	Opening ceremony	Dr Sizhen Peng ACCA21 Mr. Rick Causebrook Geoscience Australia Prof. Haibo Li IRSM, CAS
9:25-9:50	Global overview of CCS project	Ms Kathy Hill Global CCS Institute
9:50-10:15	Overview of CCUS Activities in China	Dr Jiutian Zhang ACCA 21
10:15-10:30	Tea break	
<b>Chairs:</b> Mr. Rick Causebrook and Prof. Xiaochun Li		
10:30-10:55	An overview of Australian policy and regulation on CCS	Ms Niki Jackson Department of Resources Energy and Tourism
10:55-11:20	Potential contribution of CCS in China	Prof. Xiaochun Li IRSM, CAS
11:20-11:45	CO <sub>2</sub> storage in Chinese marine aquifer – analysis of importance and potential	Prof. Di Zhou Chinese Academy of Sciences
11:45-12:10	Progress of 100000-ton CCS project in Shenhua	Mr. Dianwen Sun Shenhua Group
12:10-13:00	Lunch	
<b>Session 2: Theory and modeling of CO<sub>2</sub> aquifer storage</b>		
<b>Time:</b> 14:00-18:10		
<b>Location:</b> Sanxia Meeting Room, Baihua Erhao, Donghu Hotel		
<b>Chairs:</b> Prof. Zhonghe Pang and Dr Mark Bunch		
14:00-15:00	Mechanism and theory of CO <sub>2</sub> aquifer storage and storage capacity methods and applications	Mr. Rick Causebrook Geoscience Australia
15:00-15:25	The geological structural characteristics of sedimentary basin in China	Mr. Senqi Zhang Ministry of Land and Resources of China
15:25-15:40	Tea Break	



	<b>Chairs:</b> Prof. Di Zhou and Dr Gustavo Adolfo Fimbres-Weihs		
15:40-16:05	Numerical simulation of water-rock interaction and fluid flow	Dr Liuqi Wang <i>Geoscience Australia</i>	
16:05-16:30	Thermal physics in CCS	Dr Yu Liu <i>Dalian University of Technology</i>	
16:30-16:55	Gas-solid interaction in ECBM	Dr Guoxiong Wang <i>University of Queensland</i>	
16:55-17:20	CO <sub>2</sub> storage and EOR in China: theory and demonstration	Prof. Bo Peng <i>China University of Petroleum</i>	
17:20-17:45	Core- and pore-scale investigation of supercritical CO <sub>2</sub> injected into porous media containing water	Dr Ruina Xu <i>Tsinghua University</i>	
17:45-18:10	Discussions		
18:10-19:00	Dinner		
Oct. 28	<b>Session 3: Site characterization and selection</b>		
	<b>Time:</b> 09:00-12:10		
	<b>Location:</b> Sanxia Meeting Room, Baihua Erhao, Donghu Hotel		
	<b>Chair:</b> Ms Niki Jackson and Prof. Bo Peng		
	9:00-9:25	Progresses of Ministry of Land and Resources of China on CO <sub>2</sub> geological storage	Prof. Xufeng Li <i>Ministry of Land and Resources of China</i>
	9:25-9:50	Simulation of CO <sub>2</sub> aquifer storage	Prof. Keni Zhang <i>Beijing Normal University</i>
	9:50-10:15	Defining CCS opportunities in Victoria	Dr Peter Tingate <i>GeoScience Victoria</i>
	10:15-10:30	Tea break	
	10:30-10:55	Storage potential in Jiangnan Basin	Prof. Yilian Li <i>China University of Geosciences</i>
	10:55-11:20	Site characterization at Otway or others in Australia	Dr Mark Bunch <i>CO<sub>2</sub>CRC/University of Adelaide</i>
11:20-11:45	GreenGen: combating global climate change	Mr. Kai Lin <i>GreenGen Co.</i>	
11:45-12:10	Progress of site characterization for geological sequestration of CO <sub>2</sub> in Guantao formation in Beitang, Tianjin, China	Prof. Zhonghe Pang <i>Institute of Geology and Geophysics, CAS</i>	
12:10-13:00	Lunch		



	<b>Session 4: Safety assessment and monitoring technology</b> <b>Time:</b> 14:00-17:40 <b>Location:</b> Sanxia Meeting Room, Baihua Erhao, Donghu Hotel <b>Chairs:</b> Ms Kathy Hill and Prof. Keni Zhang	
	14:00-14:25	CCS safety monitoring technology at the CO <sub>2</sub> CRC Otway project Dr Mark Bunch <i>CO<sub>2</sub>CRC/University of Adelaide</i>
	14:25-14:50	Environmental safety evaluation on CO <sub>2</sub> storage in Oil Reservoir Prof. Jialin Wang <i>China Petroleum</i>
	14:50-15:15	The first CCS testing equipment in China Mr. Jinlin Pi <i>Wuhuan Chemical Engineering</i>
	15:15-15:30	Tea break
	<b>Chairs:</b> Dr Peter Tingate and Dr Guoxiong Wang	
	15:30-15:55	Some mechanical stability issues associated with CO <sub>2</sub> geo-sequestration: Prof. Qi Li <i>IRSM, CAS</i>
	15:55-16:20	Safety and environmental impact: assessment and policy Ms Niki Jackson <i>Department of Resources Energy and Tourism</i>
	16:20-16:45	Gorgon project Mr. Rick Causebrook <i>Geoscience Australia</i>
	16:45-17:10	Economics of CCS Technology Dr Gustavo Fimbres-Weihs <i>CO<sub>2</sub>CRC/UNSW</i>
	17:10-17:40	Discussions
	17:40-19:00	Dinner
Oct. 29	<b>Session 5: Social problems, Demonstration projects and Closing Remarks</b> <b>Time:</b> 09:00-11:50 <b>Location:</b> Sanxia Meeting Room, Baihua Erhao, Donghu Hotel <b>Chairs:</b> Dr Liuqi Wang and Prof. Yinlian Li	
	9:00-9:25	Design and safety of underground engineering in CCS demonstration project Mr. Yongjin Zha <i>China Petro</i>
	9:25-9:50	Otway Project: Implement flow, experience and conclusion Dr Mark Bunch <i>CO<sub>2</sub>CRC/University of Adelaide</i>
	9:50-10:15	Progress of Shengli oil field EOR project Jian Zhang <i>Sinopec</i>
	10:15-10:35	Tea break
	10:35-11:00	CCS safety monitoring in China Prof. Bin Gong <i>Peking University</i>
	11:00-11:25	The environmental impact management of CO <sub>2</sub> storage Dr Lancui Liu <i>Chinese Research Academy of Environmental Sciences</i>
	11:25-11:50	Closing Remarks Mr. Rick Causebrook



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			Geoscience Australia Prof. Xiaochun Li IRSM, CAS
	11:50-13:00	Lunch	
	<b>Visiting to Wuhan (14:00-18:00)</b>		





## List of Participants

### Chinese participants

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## Useful Information

**Conference Venue:** Baihua Erhao, Donghu Hotel, Wuhan, Hubei, China

**Address :** Donghu Road 124, Wuchang, Wuhan

**Reception phone :** 86-027-68881778

**Hotel website:** [http://www.el-h.com/about\\_03.html](http://www.el-h.com/about_03.html)

**Meals :** Cafeteria of Baihua Erhao

**Breakfast:** 7:00 - 9:00

**Lunch:** 11:40 -13:30

**Supper:** 17:50 - 19:30

**Note :** Please use the proper dinner coupons for dining, Do not lost coupons or transfer them.

**Emergency call:** 119 (fire), 110 (police), 120 (ambulance)

**In-hotel transportation:** For in-hotel transportation, call hotel reception.

**Weather:** Oct. 26 Cloudy 8□-14□

Oct. 27 Cloudy 8□-14□

Oct. 28 Cloudy 11□-16□

Oct. 29 Cloudy 12□-18□

**Tour:** Yellow Crane Tower and Hubei Province Museum



Map of Donghu Hotel

