

9th International Conference on Gas Geochemistry

Taiwan, October 1-8, 2007

Third Circular

Important announcement

We have 140 registered participants for the upcoming ICGG9 conference until now. It is more than we expected and, therefore, the organizing committee decided to move the conference venue to the College of Engineering Building, NTU, which is also in the campus of National Taiwan University and is able to accommodate more participants. Please refer the website for the detailed location.

Schedule for the conference

S	M	T	W	T	F	S
<u>9/30</u>	<u>10/1</u>	<u>10/2</u>	<u>10/3</u>	<u>10/4</u>	<u>10/5</u>	<u>10/6</u>
	Scientific Program	Scientific Program	Scientific Program	Scientific Program	Scientific Program	Field Excursion
	Scientific Program	Scientific Program	Scientific Program	General Assembly	City Tour	
Ice Breaker	Welcome Reception		Business Meeting of International Committee	Banquet Party	City Tour	
<u>10/7</u>	<u>10/8</u>	10/9	10/10	10/11	10/12	10/13
Field Excursion						

Scientific program

We have received more than 100 abstracts from participants of 23 countries. They cover a wide variety of applications of gas geochemistry in earth sciences. The scientific program is arranged based on different fields of studies and applications. Detailed program is attached and will be updated on the official website of the conference (<http://icgg9.gl.ntu.edu.tw>).

To encourage the young scientists to join this society, the organizing committee decided to arrange a special session for young scientists. It will include all enrolled students and young post-doc researchers. The best paper(s) will be selected by referees, and awarded in the general assembly.

Guideline for presentation

Oral Presentation:

Except for the first keynote address, the presentation time for each invited speaker is 30 minutes; rest of all speakers is 20 minutes (all including 5 min discussion) for oral sessions. There is only one screen in the conference hall.

No overhead projector will be provided. The speakers need to prepare their slides in the format of Microsoft PowerPoint file.

Poster Presentation:

The frame size for poster display is 150cm (width) x 90cm (height). All presenting authors of poster sessions are requested to present their work briefly for 3-5 minutes at the beginning of scheduled poster sessions before moving to the poster place for further discussion. In addition to the poster, therefore, the authors need to prepare 3-5 slides in the format of Microsoft PowerPoint file too.

Special issues as conference proceedings

We are contacting some publishers for potential publication of selected papers as conference volume(s) in international SCI journal(s). The submission deadline of the full papers is December 31, 2007. Detailed requirements for preparation of the manuscripts will be given in future correspondence.

Conference Fee

It includes admission to the poster and oral presentation sessions and, program and abstract volume, refreshments, lunch boxes during the conference from October 1 to 5, and the official activities (ice breaker, welcome reception, banquet dinner and transportation of the Friday city tour).

Traffic

There are three ways to reach conference venue and hotels. Door-to-door pickup can be arranged. Contact us to reserve the pickup service. Please refer the website of ICGG9 for detail information.

Weather

The weather is usually mild with temperature of 20-30°C during conference time. However, light coat and umbrella are recommended. 36-hour and 7-day forecast are available at the website of Central Weather Bureau of Taiwan (<http://www.cwb.gov.tw/V5e/index.htm>). Please check the forecast before you pack.

City Tour

The organizing committee is arranging a half-day city tour for all participants in the afternoon of October 5 to visit some must-go spots in Taipei city. We will visit the most famous *Palace Museum*, *Taipei 101* and *Longshan Temple*, and will leave some time for you to taste the delicious local food.

There are more and more attractions around Taipei city. We have compiled some useful information for you in the tourist guide. Hope you can enjoy your stay in Taipei city during the conference time.

Field Excursion

Following the five-day program (October 1-5, 2007), a three-day field trip (October 6-8, 2007) is organized to visit the hydrothermal areas in northern Taiwan, Petroleum museum of Chinese Petroleum Company, earthquake museum and fault scarps in central Taiwan, and mud volcanoes/seepages along active fault zones in southwestern Taiwan. Following is the updated itinerary:

October 6 (Saturday): Taipei -> Yangmingshan National Park (active hydrothermal areas) -> Feng-Yuan (fault scarps) -> Earthquake museum and fault scarps -> stay at Chiayi (southwestern Taiwan)

October 7 (Sunday): Chiayi -> Chung-lun mud pool and hot spring -> Suei-Ho-Tung-Yuan everlasting fire on water -> Kuan-tze-ling mudding hot springs -> Jia-sian carbonate outcrop of cold seep deposits in mudstones -> stay at Tainan (southern Taiwan)

October 8 (Monday): Tainan -> Wu-shan-ding mud volcano, and nearby mud volcanoes -> CPC Taiwan Petroleum Exhibition Hall -> arrive Taipei around 18:00.

The cost is US\$250 for each participant. It includes field guidebook, three day meals, two-day accommodation (Oct. 6 and 7), and transportation. Extra US\$100 need to pay for the single room accommodation.

Invitation letter and Visa application

We have sent the invitation letter to most participants by email. In case you need the original copy of the letter for your application, or you have not received the letter yet, please contact us. We will send/post you the letter right away.

To come in Taiwan for the conference, you may need to apply the visa. Please consult your travel agency and Taiwan's Embassies/Missions in/nearby your countries how to apply for that. Don't hesitate to contact us if you need any help from organizing committee.

Information and Correspondence

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Technical Program of ICGG9 (9/14/2007 updated)

Sunday (9/30)

16:00-18:00 Registration

18:00-20:00 Ice Breaker

Monday (10/1)

08:30-09:00 Registration

09:00-09:20 Opening

09:20-10:00 Keynote address-1 *moderated by B.M. Jahn*

M. Ozima*, Q.Z. Yin et al. Earth Evolution Recorded in Noble Gases and Volatiles in the Moon

10:00-10:40 group photo-I and break

10:40-12:10 Keynote address-2 *moderated by C-H. Chen*

B. Marty*, N. Coltice and A. Meibom Noble Gas Sources and Fluxes in the Hadean
M.D. Kurz* and J. Curtice Residence Sites of Noble Gases in Basalt Glasses and Peridotites: Implications for Partitioning and Gas Migration

W.L. Huang Oil and Gas Generation and Expulsion: Seeing is Believing

12:10-13:20 lunch

13:20-15:10 Oral session-1 *moderated by F. Italiano*

invited

J.K.W. Lee Using Argon as a Temporal Tracer of Large-Scale Geologic Processes
T.F. Yang Natural Analogue of Long-term CO₂ Storage in the Sedimentary Formation of Western Taiwan
H. Woith*, C. Gajewski et al. Cyclical and Transient Radon Variations at the Tiberias Hot Spring, Israel
V. Wallia*, S.J. Lin et al. Soil-Gas Monitoring: A Tool for Fault Delineation Studies Along Hsinhua Fault (Tainan), Southern Taiwan
N.K. Das*, R.K. Bhandari et al. Scaling and Crossover Phenomena in Anomalous Helium Sequence

15:10-15:30 break

15:30-17:00 Oral session-2 *moderated by D. Hilton*

invited

Y. Taran Problems in Interpretation of Nitrogen and Argon Data for Volcanic and Hydrothermal Gases
B.G. Polyak Mantle Helium Traces around Elbrus and Kazbek Volcanoes (Northern Caucasus)
T. Ohba*, T. Sawa et al. CO₂/H₂O Ratio of Magmatic Gas Estimated from the Analysis of Fumarolic Gas Sampled at Tatun Volcano Group, Taiwan
H. Pfaniz Geogenic CO₂- Exhalations and Vegetation- Mofette Plants

18:30-20:00 Welcome Reception

Tuesday (10/2)

08:30-10:20 Oral session-3 *moderated by K. Notsu*

invited

D.R. Hilton*, E. Fueri et al. Helium Isotope Studies in Regions of Crustal Unrest: the San Andreas Fault Zone, California and the North Anatolian Fault Zone, Turkey
G. Yuce*, T. Streil et al. Multi Parameter Hydrogeological Monitoring in Eskisehir region (Turkey) to Analyze any Precursors Derived from Earthquakes
W. Balderer* and F. Leuenberger Detection of Sensitive Compounds in Groundwater with Observed Enhanced Fluorescence Spectra from Earthquake Prone Areas: First Results
J. Heinicke*, G. Martinelli and L. Telesca A 1000 m Water Well as a Test Monitoring System for the Detection of Possible Earthquake Related Anomalies in Fluids
S.K. Bartarya*, V.M. Choubey et al. Radon and Helium in Thermal and Natural Water Springs of Upper Bhagirathi, Mandakini and Yamuna Valley, Garhwal Himalaya

10:20-10:40 break

10:40-12:20 Oral session-4 *moderated by W. Balderer*

K. Kant* and S.K. Chakarvarti Alpha Active Pollutants as a Precursor of Seismic Activity: A Review
L.L. Chyi*, T.J. Quick et al. Origin and Detection of Spike-Like Anomalies in Soil Gas Radon Time Series
K.C. Fan, M.C.T. Kuo* et al. Anomalous Decreases in Groundwater Radon Precursory to Earthquakes in Eastern Taiwan
R. C. Ramola Subsurface Changes in Radon Concentration Associated with Earthquake Activity in Garhwal Himalaya
A. Negarestani A New Approach Based on Electrical Circuit Model for Using of Time Variation of Radon Concentration in Earth as an Earthquake Precursor

12:20-13:30 lunch

13:30-15:20 Oral session-5 *moderated by G. Zellmer*

invited

K. Notsu* and T. Mori Chemical Monitoring of Volcanic Gas Using Remote FT-IR Spectroscopy at Several Active Volcanoes in Japan
R.P. Singh*, S. Kumar J and A.K. Prasad Satellite Detection of Carbon Monoxide Emission Prior to Earthquakes and Volcanoes
Y. Sano*, N. Takahata and J. Yamamoto High ³He Emanation Observed in a Forearc Region of the Kinki district, SW Japan: Revisited
U. Koch*, J. Heinicke et al. The Gas Flow at Mineral Springs and Mofettes in the Vogtland/NW Bohemia: An Enduring Long-term Uptrend
R.M. Barragán*, V.M. Arellano et al. Major ²²²Rn Anomalies in Fluids of Los Azufres (México) Geothermal Field

15:20-15:40 break

15:40-17:00 Oral session-6 *moderated by S. Chalupnik*

V.M. Choubey*, S.K. Bartarya and R.C. Ramola Effect of Hydrogeology and Monsoon on Radon Concentrations in Groundwater of Intermountain Basin of Outer Himalaya
J. He*, X. Bin and Y. Pin Migration and Accumulation Characteristics and Potential of Multi-Origin Inorganic CO₂ in the Ying-Qiong Basin, the South China Sea
T.F. Lan*, T.F. Yang et al. Invasion of Mantle-Derived Fluids into I-Lan Plain, NE Taiwan from Southwest Part of the Okinawa Trough: Evidence of Helium Isotopes in Soil Gases
K. Takai, H. Kumagai* et al. Extremely H₂-rich Hydrothermal Fluids Feed a Possible Successor of the Archean Microbial Ecosystem -Ultra-H³ Hypothesis

Wednesday**08:30-10:20** Oral session-7 *moderated by J. Heinicke*

invited

G. Etiopé*, A. Feyzullaiev and C.L. Baciu	Methane Seeps and Mud Volcanoes on Land: A Global Perspective of Gas Origin and Advective Fractionation
K. Bräuer*, G. Strauch and H. Kämpf	The Different Degassing Behaviour of Upper Mantle-Derived Fluids in the Western Eger Rift Area (Central Europe)
S. Singh*, D.K. Sharma et al.	Tectonic Significance of Radon in the Frontal Himalayan Zones of Nurpur Area District Kangra, Himachal Pradesh, India
W.L. Hong* and T.F. Yang	Methane Flux from Accretionary Prism Through Mud Volcano Area in Taiwan- From Present to the Past
C.H. Sun*, C.L. Kuo et al.	Geochemistry and Hydrocarbon Potential of Mud Volcanoes in Taiwan

10:20-10:40 break**10:40-12:10** Oral session-8 *moderated by A. Waseda*

invited

F. Italiano*, G. Martinelli et al.	Greenhouse Gases Released from the Apennine Chain, Italy: Mechanochemical Production Besides Mantle-Derived Contribution
Z. Duan*, Z. Zhang et al.	Thermodynamic Models of Various Gases and Mixtures Covering a wide Temperature-Pressure-Composition Space
C.K. Lin	The Optimum Sequestration Depth for CO ₂ Geo-Sequestration
M. Zimmer* and J. Erzinger	Development and Application of a Gas Membrane Sensor for In-Situ Down Hole Observation of Gases During Geological Storage of Carbon Dioxide

12:10-13:30 lunch**13:30-15:10** Oral session-9 *moderated by W.R. Chi*

A. Waseda* and H. Iwano	Characterization of Natural Gases in Japan Based on Molecular and Carbon Isotope Compositions
J.N. Oung* and Z.Y. Lin	Geochemical Characteristics and Genetic Origin of Natural Gas Discovered in Taiwan
Y. Wang*, C. Zhao et al.	Origins of Natural Gases from Marine Strata in Northeastern Sichuan Basin (China) by Molecular and Carbon Isotopic Data
T. Laier* and H.P. Nytoft	Gases with Abiogenic Signature in Association with Bitumen in Alkaline Rocks of the Ili-maussaqq Intrusion, Greenland
J.S. Jean*, J.P. Maity and C.C. Liu	Biogeochemical Characterization of Kuan-Tzu-Ling Hot Spring in Southern Taiwan

15:10-15:30 break**15:30-17:10** Poster session-1 *moderated by L.H. Lin*

H. Lu* and J.A. Ripmeester	The Factors Affecting Gas Hydrate Formation in Natural Environment
Y. Wang*, D.F. Chen and Z. Song	Detecting Surface Oil Slick Related to Gas Hydrate/Petroleum on the Ocean Bed of South China Sea by ENVI/ASAR Radar Data
Z. Song*, Y. Zhong and C. Wang	Characterizing Organic Matter in the Surface Sediments Associated with Gas Hydrate and Oil Seepage From the Gulf of Mexico
J.N. Oung* and D.C. Chen	Cutting Gas of Exploration Wells in Taiwan- Geochemical Characteristics and Implications in Hydrocarbon Generation
C.H. Sun*, C.L. Kuo et al.	Occurrences and Isotopic Geochemistry of Natural Gases in Western Taiwan
T.F. Yang*, G.H. Yeh et al.	Evolution of Mud volcanoes in the Accretionary Prism of Southern Taiwan: Constraints of Gas and Fluid Geochemistry
T.F. Yang*, C.C. Fu et al.	Radioactive Gas Emission from Mud Volcanoes in Taiwan
T.K. Liu*, K.Y. Chen et al.	Origin of Methane in Aquifers under two Coastal Plains of Taiwan
D.F. Chen*, Z. Lin et al.	REE Signature of Redox Variation and Microbiological Process Preserved in Seep Carbonate at Gas Vent Site
D. Feng, D.F. Chen* and H.H. Roberts	Sedimentary Fabrics in Seep Carbonates from Bush Hill: Implications for Biogeochemical and Microbiological Processes

18:00-20:00 Business Meeting of International Committee**Thursday (10/4)****08:30-10:30** Young Scientists Poster Presentation *moderated by A. Kies, G. Martinelli, L.L. Chyi and W.L. Huang*

N. Taira* and J. Hirabayashi	The Effusion Mechanism of Onikobe Geyser (Japan) from Chemical and Isotopic Study
T.F. Lan*, T.F. Yang et al.	Invasion of Mantle-Derived Fluids into I-Lan Plain, NE Taiwan from Southwest Part of the Okinawa Trough: Evidence of Helium Isotopes in Soil Gases
H.F. Lee*, T.F. Yang et al.	Gas Compositions and He-C Isotopic Ratios of Fumarolic Samples from Some Active Volcanoes in Philippines
H.F. Lee*, T.F. Yang et al.	Temporal Variations of Gas Compositions of Fumaroles in the Tatun Volcano Group, Northern Taiwan
S. Mahajan*, V. Walia et al.	Soil Gas Survey in Mandi- Sundernagar Area, NW Himalaya, India: Prospecting in Fault Delineation
A. Kumar*, S. Mahajan et al.	Geochemical Earthquake Precursor Studies in NW Himalayas, India
C.C. Fu*, T.F. Yang et al.	Soil Gas Investigation on the Tapingdi Fault in Northern Taiwan and the Continuous Monitoring Results
W.L. Hong*, T.F. Yang et al.	Evidences Support Nitrogen as Carrier Gas of Helium Along Hsincheng Fault, NW Taiwan
D.E. Tchorz* and A.T. Solecki	Seasonal Variation of Radon Activity in Atmospheric Air - Nowa Ruda Area (Sudety Mts. SW Poland)
J.C. Shen*, C.H. Sun et al.	Gas from Neogene Coals in the Northwestern Taiwan Region by Hydrolysis
P.C. Chuang*, T.F. Yang et al.	Estimation of the Thickness of the Base of Hydrate Stability Zone in Offshore of SW Taiwan Based on Geochemical Data
W.L. Hong* and T.F. Yang	Methane Flux from Accretionary Prism Through Mud Volcano Area in Taiwan- From Present to the Past
J.P. Maity*, C.C. Liu and J.S. Jean	Gas Biogeochemical Characterizations of Wu-Shan-Ding and Shiao-Kun-Shui Mud Volcanoes in Taiwan
P.H. Chu*, C.C. Chen et al.	Evaluating the Potential of Anaerobic Methane Oxidation in Terrestrial Mud Volcanoes of Southern Taiwan
C.K. Chen*, J.J. Wu et al.	Inventory of Metabolic Energy Deduced from Aqueous and Gas Geochemistry of Hot Springs in Northern Taiwan
G. Czuppon*, T. Matsumoto and J. Matsuda	Helium and Argon Isotopes Measured in Spinel Peridotite Xenoliths from Mt. Quincan, North Queensland, Northeast Australia
T.H. Lin*, C.H. Lo et al.	⁴⁰ Ar / ³⁹ Ar Dating of the Jiali and Gaoligong Shear Zones and its Tectonic Implications to the Crustal Deformation Around the Eastern Himalaya Syntaxis
C.Y. Wu* and C.H. Lo	3-D Plane-Fitting Program in ⁴⁰ Ar/ ³⁹ Ar Dating
J.P. Das* and S.V.S. Murty	Presence of Insoluble Organic Matter in Chondrule Precursors

10:30-10:50 break

10:50-12:10 Poster session-2 moderated by C. Baciú

T. Jimsheledze, Z. Machaidze, G. Melikadze, G. Kobzev, G. Martinelli* et al.	Multi-Parametrical Monitoring of Deep Seated Fluids for the Characterization of Medium-Short Term Transients in the Crustal Strain Field	
I. Laskar*, A. K. Goswam et al.	Correlation between Radon Anomaly with Meteorological Parameters and Earthquake	
A. Negarestani*, F. Nasari et al.	Continuous Radon Monitoring in the Hot Spring of Sirch as an Earthquake Precursor	
P. Görlitz, J. Heinicke* et al.	Submarine Gas Flow Monitoring at Panarea Volcano, Italy	
H. Pfanz*, F. Saßmannshausen et al.	Plant Based Detection of Dry Mofettes – an Example from the Volcanic Laacher See District, Germany	
K. Suzuki*, Y. Watanabe et al.	Experimental Investigation of Mechanism of Hydrogen Generation in Hydrothermal Serpentinization of Ultramafic Rocks	
T. Matsumoto*, J. Matsuda et al.	Noble Gases in Stalagmite Inclusion Fluids: Preliminary Results	
K. Sato*, H. Kumagai et al.	Experimental Study for Noble Gas Release and Exchange Under High-speed Frictional Melting	
C. Flechsig, C. Schütze and H. Kämpf*	Geoelectrical Investigation of Magmatic Degassing Zones in the Eger-Rift (Central Europe): A Case Study of the Hartousov Mofette Field	
A. Caprai*, E. Calvi et al.	Geochemical Surveillance of Reactive Gas from Pozzuoli Solfatara (Naples, Italy): Chronological Evolution and Local Ground Displacement	
A.T. Solecki* and D.E. Tchorz	Radon Emanation from Coal Ashes	
M. Wysocka	Radon in some Jurassic Caves in Southern Poland	
R. Mehra*, S. Singh and K. Singh	Assessment of the Average Effective Dose from the Analysis of ²²⁶ Ra, ²³² Th and ⁴⁰ K in Soil Samples from Punjab, India	
E. Faber*, M. Teschner et al.	Continuous Gas Monitoring at Three Volcanoes	x
J.H. Obenholzner*, J. Parks and M. Eric Reiter	Arsenic Eaters, Arsenic Drinkers and Arsenic Breathers – Are We Prepared for the Next Big Volcanic GIS : A New Tool for Volcanic Gases' Survey – A Case Study at Vulcano Island, Southern Italy	x
Eric Reiter	VolcanoGasML: A New Format for Geochemical Volcanic Gases Data	x
J. Liu* and Z. Song	Chemical Changes in Rainwater in a Time of Extremely Rapid Urban Development of Guangzhou China	x
F.E.B. Bayon* and G. Magro	Differences in Noble Gas Signatures in two Active Geothermal Systems in the Philippines	x
M.M.M. Olivar*, D.B. Dacillo et al.	Tritium As Vapour-Phase Tracer in Leyte Geothermal Production Field: Initial Results	x
F. Akper	Hydrocarbon Migration and Gas Survey Efficiency in Different Tectonic Settings	x
A.L. Ramanathan*, R. Chauhan and T.K. Adhya	Dynamics of CH ₄ and N ₂ O Emission Flux from Bhitarkanika Mangrove Sediments of Eastern Orissa, India	x

12:10-13:30 lunch

13:30-14:00 Introduction of Field Excursion

14:00-14:20 group photo-2

14:20-17:00 General Assembly

18:30-21:00 Banquet Party

Friday (10/5)

08:30-10:10 Oral session-10 moderated by A.T. Solecki

invited

N. Perez	Diffuse CO ₂ Emission and Volcanic Activity	
O. Vaselli*, F. Tassi et al.	Gas Discharges from the Nyiragongo Volcano (D.R. Congo) and Surrounding Areas: Implications for Environmental Impact and CO ₂ -related Risks from Dry Vents	
T. Streil*, V. Oeser and M. Ogena	Continuous Measurement of Geochemical Parameters in Aggressive Environment	
A. Caprai	Methods and Apparatus for Feeding Samples of Gas at Controlled Pressure into Gas Chromatographs (International Patent US 11/718,896 and IT/12.11.04 ITA PI20040083) and its Application in Geochemical Surveillance	

10:10-10:30 break

10:30-12:00 Oral session-11 moderated by H. Woith

A. Kies*, Z. Tosheva and A. Nawrot	Natural Radioactive Isotopes in Glacier Studies	
C. Baciú*, L. Spulber et al.	Methane Seepage Hazard for Urban Development Areas – A Case Study	
B.S. Bajwa*, H. Singh et al.	Environmental Radioactivity Monitoring around the Tusham Ring Complex, Haryana : A Case Study	
S. Chalupnik	Method of Simultaneous Measurements of Radon and Radon Progeny in Air	
D. Shanker*, H.N. Singh et al.	Geological Evidence of Natural Radioactivity in Southern Tamil Nadu, India - Impact on the Human, Animal Health and Natural Environment	

12:00-13:00 lunch

13:10-20:00 City tour

Saturday (10/6) - Monday (10/8)

Field Excursion

note that: (1) each invited speaker has 30 min and rest of all speakers have 20 min presentation time (all including 5 min discussion) for oral sessions.

(2) all the presenting authors of poster sessions need to present 3 slides (3-5 min) of PowerPoint file to promote their work in the scheduled session before discussing with colleagues in front of their posters.

(3) the young scientists poster session include all enrolled students and young post-doc researches; the best paper(s) will be selected by referees and awarded in the general assembly.

(4) * denotes the presenting author; and x indicates absence of the authors of the paper.