

D.I.N.G.U.E. 5

FRIDAY, August 11th, 2017

18:00 21:00 Icebreaker Party IPGP roof top

SATURDAY, August 12th, 2017

08:30 09:00 Coffee

Sat I

09:00 10:30 ET, Planetology

Chairs: O. Pravdivtseva, A. S. G. Roth

09:00 09:15 1.1 S. Mikhail, M. J. Heap

Hot Climate Inhibits Volcanism on Venus: Constraints from Rock Deformation Experiments and Argon Isotope Geochemistry

09:15 09:30 1.2 S. L. Lucas, C. J. Ballentine, S. A. Robinson, H. C. Jenkyns

Using Extraterrestrial ³He Concentration to Examine Changing Sedimentation Rates within a Precession Cycle

09:30 09:45 1.3 D. Chavrit, M.A. Moreira, D. Fike, F. Moynier

Unusual Neon Isotopic Composition Recorded in Neoproterozoic Sedimentary Rocks: Extraterrestrial Or Mineralogical Signature?

09:45 10:00 1.4 A. A. Plant, M. M. M. Meier, H. Busemann, C. Maden, M. Schönbacher

Solar-Wind Rich Dust and Spherules from the City

10:00 10:15 1.5 P. Will, H. Busemann, C. Maden

Towards Analyzing all Noble Gases in Cometary Dust by Closed-System Step Etching (CSSE)

10:15 10:30 1.6 R. Yokochi

Ar Trapping Efficiency in Amorphous Water Ice

10:30 11:00 Coffee

Sat II

11:00 12:30 ET, Planetology continued

11:00 11:15 1.7 S. A. Crowther, J. D. Gilmour, A. M. Ruzicka

First I-Xe Age of a New Suite of Large Igneous Inclusions in Ordinary Chondrites

11:15 11:30 1.8 M. Koike, H. Sumino, Y. Sano, M. Ozima

Stepwise Heating and Vacuum Crushing Analyses of Noble Gases in Martian Meteorites

11:30 11:45 1.9 A. S. G. Roth, M. Kuga, C. Liebske, C. Maden, H. Busemann

The Fate of Primordial Noble Gases during Planetary Differentiation

11:45 12:00 1.10 A. Meshik, O. Pravdivtseva

Xenon-Q, Xenon-P3 and Fission Xe: Are they Related?

12:00 12:15 1.11 R. Parai, S. Mukhopadhyay

I-Pu-Xe Constraints on Early Earth Degassing

Mantle/Cycling/Volcanology

Chair: S. Péron (H. Busemann)

12:15 12:30 2.1 A. Caracausi, B. Marty

Xenon in the Mantle Below Europe: Constrains on Mantle Plumes in Continental Regions

12:30 14:00 Lunch

Sat III	14:00	15:30			
	14:00	14:15	2.2	B. Ware, F. Jourdan	$^{40}\text{Ar}/^{39}\text{Ar}$ Geochronology of Terrestrial Pyroxene
	14:15	14:30	2.3	S. M.V. Gilfillan, C. J. Ballentine	He, Ne and Ar Snapshot of the Subcontinental Lithospheric Mantle from CO_2 Well Gases
	14:30	14:45	2.4	S. Péron, M. Moreira, M. D. Kurz, J. Curtice, B. Putlitz	What New Popping Rocks from the Mid-Atlantic Ridge (14° N) Tell Us?
	14:45	15:00	2.5	J. A. Krantz, S. W. Parman, S. P. Kelley, C. R. M. Jackson, A. J. Smye, R. F. Cooper	Experimental Constraints on Noble Gas Recycling into the Mantle
	15:00	15:15	2.6	M. A. Kendrick	Global Scale Cycling of Seawater-Derived Volatiles into the Mantle
	15:15	15:30	2.7	H. Kumagai, K. Sato, M. Ban, N. Iwata	Noble Gas Abundance and Isotope Ratios Dissolved in Surface Water at an Active Volcano, Zao, Japan, Using Newly Developed Preprocessing Apparatus
	15:30	16:00	Coffee		
Sat IV	16:00	18:00	Water/Resources/Reservoirs		Chairs: M. Pujol, F. Stuart
	16:00	16:15	3.1	P.-H. Blard	Terrestrial Cosmogenic ^3He : A Review of the Current Capabilities of this Geochronometer
	16:15	16:30	3.2	F. Jourdan, K.F. Oostingh, M. Danišić, N.J. Evans	Advancements in Cosmogenic ^{38}Ar Exposure Dating of Terrestrial Rocks**
	16:30	16:45	3.3	R. Wieler, M. Brennwald, R. Kipfer, F. Kober, P. Vermeesch	Cosmogenic ^3He in Water Targets Exposed for 8 Years in the Swiss Alps
	16:45	17:00	3.4	J. C. Zappala, K. Bailey, M. Bishof, P. Mueller, T. P. O'Connor	Radiokrypton Dating of Old and Young Groundwater
	17:00	17:15	3.5	S. Mayer, F. Jenner, W. Aeschbach	A 2.5 Years Record of Noble Gas Mixing Ratios in Soil Air and Groundwater in Mid-Latitudes
	17:15	17:30	3.6	I. Tolstikhin, S. Tarakanov, M. Gannibal, A. Gudkov	Helium Isotope Production and Mobility in Sedimentary Basin: Stagnant Pore Waters in Permo-Carboniferous Trough, Northern Switzerland
	17:30	17:45	3.7	A. Cheng, B. Sherwood Lollar, S.O.C. Mundle, C. J. Ballentine	Identifying Transport Mechanism of Cross Formational Flow in the Williston Basin
	17:45	18:00	3.8	J. A. Scott, S. M. V. Gilfillan, M. Pujol	Investigating Reservoir Connectivity Using Noble Gases in a West of Shetland Hydrocarbon Reservoir
	18:00	21:00	Wine-Beer-Cheese reception IPGP roof		

SUNDAY, August 13th, 2017

	08:30	09:00	Coffee		
Sun I	09:00	10:45	Water/Resources/Reservoirs continued		
	09:00	09:15	3.9	M. Pujol, H. Zhou, F. Montel, S. Gilfillan	How Noble Gas Tracing can Help Unravel Complex Fluid History in a Sub-Salt Petroleum System
	09:15	09:30	3.10	Y. Li, Z. Zhou, S. Markusson, C. Zwahlen, G. Holland	Noble Gas and Stable Isotope Characteristics of Hydrothermal Fluid System, Krafla, Iceland
	09:30	09:45	3.11	Hillegonds, D.J. Byrne, P.B. McMahon, M.K. Landon, C.J. Ballentine	Tracing Enhanced Oil Recovery Injection Fluids Using Noble Gases from the Lost Hills and Fruitvale Oil Fields, USA
	09:45	10:00	3.12	D. J. Byrne, P. H. Barry, S. Becker, S. Becker, D. J. Hillegonds, C. J. Ballentine	Oil-Water Exchange, Degassing, and Cracking of Oil Traced by Noble Gases in the Eagle Ford Shale
	10:00	10:15	3.13	H. Hoang, R. Vermorel, G. Galliero*, M. Pujol	Modeling Noble Gas Isotopic and Element Fractionation by Diffusion in Oil and Gas under Reservoir Conditions
	10:15	10:30	3.14	D. Györe, M. Pujol, S. Gilfillan, F.M. Stuart, S. Estrada	Using Noble Gas Isotopes to Constrain the Source of CO ₂ in the Vaca Muerta Shale in the Neuquén Basin (Argentina)
	10:30	10:45	3.15	R. Karolytè, S. Serno, G. Johnson, S.M.V. Gilfillan	Geochemical Tracing of Fault-Controlled CO ₂ Storage and Migration in South East Australia
	10:45	11:15	Coffee		
Sun II	11:15	12:30	Technical		
					Chairs: L. E. Morgan, H. Sumino
	11:15	11:30	4.1	D. P. Tootell, V. Volkovoy, T. Jones, Z. Palacz, D. G. Burgess (IsotopX)	A New Faraday Cup Amplifier: Redefining the Dynamic Range of the Faraday Cup Detector
	11:30	11:45	4.2	A. Suckow, S. Smith, A. Deslandes, A. Kersting	The First Facility on the Southern Hemisphere to Measure all Noble Gases in Water: Concepts, Construction, Results
	11:45	12:00	4.3	L. E. Morgan, B. Davidheiser-Kroll	Pressure Disequilibria Induced by Rapid Valve Closure in Noble Gas Extraction Lines
	12:00	12:15	4.4	H. Sumino, K.R. Jensen, T. Hondo, M. Toyoda	Helium Isotope Analysis Using a Portable Time-of-Flight Mass Spectrometer
	12:15	12:30	4.5	J. Saxton (CAMECA-nu-AMETEK)	What's new with the Noblesse?***
	12:30	14:00	Lunch		

Sun III	14:00	15:30	Technical	
	14:00	14:30	Pete Burnard Award Ceremony	
	14:30	15:00	4.6	J. Amalberti (awardee), P. Burnard, L. Tissandier, D. Laporte The Diffusion Coefficients of Noble Gases (He-Ar) in a Synthetic Basaltic Liquid: One-Dimensional Diffusion Experiments
	15:00	15:15	4.7	H. Pinto De Magalhães, M. B. Brennwald, R. Kipfer* Ab Initio Molecular Dynamics Simulations to Analyze the Strange Isotopic Pattern of Noble Gases Diffusing Through Water
	15:15	15:30	4.8	D. Hamilton (ThermoFisher Scientific) tbd**
	15:30	16:00	Coffee	

*presenter

** no abstract available

POSTERS

visible both days, discussions are encouraged during all breaks

Mantle/Cycling/Volcanology

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| 2.8 | J. C. Crosby, S. Mikhail, F. M. Stuart, F. Abernethy | Tracing Volatiles in Earth's Mantle Using He-C-N Isotopes in Garnet-Bearing Diamondites |
| 2.9 | K. Kawana, H. Sumino, K. Yamane, T. Mori, A. Shimizu, K. Notsu, P.A. Hernández | Long-Term Monitoring of Helium Isotope Ratio of the Volcanic Gas and Hot Spring Water at Izu-Oshima Volcano, Japan |

Water/Resources/Reservoirs

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| 3.16 | Y. Sano, Y. Tomonaga, D.L. Pinti
M. Sakuraba, H. Sumino, T. Maruoka, H. Matsuzaki, | Geochemistry of Natural Gas at the West Pacific Convergent Plate Boundary |
| 3.17 | H. Kusuno, M. Kawamoto, H. Tokuyama, K. Shozugawa | Groundwater Flow System in Fukushima Prefecture, Japan, Traced by Tritium- ³ He and ¹²⁹ I Dating Methods |

Technical

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| 4.9 | R. Delon, S. Demouchy, Y. Marrocchi, A. Bouhifd | Helium Incorporation and Diffusion in Polycrystalline Olivine |
| 4.10 | F. Jenner, S. Mayer, W. Aeschbach | Intercomparison of Two Mass Spectrometric Systems for Noble Gas Analysis |
| 4.11 | T. M. O'Brien, M. J. Grove | Ne and Ar Diffusion in Biotite: Implications for Ar Release Mechanisms During in Vacuo Heating of Rapidly Cooled Magmatic Micas |
| 4.12 | L. Zimmermann, G. Avice, P.H. Blard, B. Marty, E. Füre, P. Burnard | A new All-Metal Induction Furnace for Noble Gas Analysis |

16:00 **end of workshop**

17:00 (Goldschmidt Welcome Party)