

**Program**  
**Isotope-ratio mass spectrometry**  
**23-25 November, 2011**  
**Haeundae Grand Hotel in Busan, Korea**

**Wednesday, November 23**

***Special session: Geochemical research related with activity of the Baegdusan volcano***

**9:30-9:40** Registration for the special session

**Chair: Jin-Ho AHN (Seoul National University)**

**9:40-10:00**

**Sung-Hyo YUN (Busan National University)**

Unrest at the Mt. Baegdusan

**10:00-10:50**

**Takeshi OHBA (Tokai University)**

Geochemical study of the crater lake at Kusatsu-Shirane volcano for the evaluation of volcanic activity

**10:50-11:00**

***Tea Break***

**11:00-11:50**

**Takeshi OHBA (Tokai University)**

Geochemical study of fumarolic gases at some active volcanoes for the evaluation of volcanic activity

**11:50-12:30**

**Minoru SAKAMOTO (National Museum of Japanese History)**

Comments on  $^{14}\text{C}$  Wiggle-Matching of the B-Tm Tephra, Baegdusan Volcano"

**12:30-12:40**

Discussion

**12:40-14:00**

***Lunch***

***Pre-seminar 2011 in Busan: Breakthrough in mass spectrometry***

**Chair: Taehoon KIM (KOPRI) and Yuji ORIHASHI (Univ. Tokyo)**

**14:30-14:35** Opening

**14:35-15:20**

**Tetsuya YOKOYAMA (Tokyo Institute of Technology, Japan)**

Breakthrough in Thermal Ionization Mass Spectrometry

**15:20-16:05**

**Urumu TSUNOGAI (Hokkaido University, Japan)**

Breakthrough in Isotope-Ratio Mass Spectrometry

**16:05-16:20**

*Tea Break*

**16:20-17:05**

**Takafumi HIRATA (Kyoto University, Japan)**

Breakthrough in ICP-Mass Spectrometry

**17:05-17:50**

**Keisuke NAGAO (University of Tokyo, Japan)**

Breakthrough in Noble Gas Mass Spectrometry

**17:50 Closing**

**18:00-20:30**

*Dinner party at Haeundae Grand Hotel*

**20:30-22:00**

*Poster session (I)*

**Chair: Seung-Gu Lee (KIGAM) and Masaharu TANIMIZU (JAMSTEC)**

**P1: Naoyoshi IWATA**

Method and problem in K-Ar dating of young volcanic rocks

**P2: Makiko KIKUCHI**

Noble gases in radiation-damaged zircon above the Bangombé natural fission reactor

**P3: Yuichiro CHO**

Development of a laser ablation isochron K-Ar dating method for landing planetary missions

**P4: Fumihiko KITAMURA**

Noble gases in olivines in Udachnaya kimberlite, Siberia

**P5: Daisuke UMEMOTO**

Generation of carbon films and comparative noble gas analysis with phase Q

**P6: Tomoyuki SHIBATA**

Trace and Sr, Nd and Pb isotopic compositions of Sakurajima volcano, southern Kyushu Island, Japan

**P7: Kyeong Ja KIM**

New investigations of paleoclimate and environmental change using authigenic beryllium isotope records

**P8: Urumu TSUNOGAI**

Hydrogen isotopes of H<sub>2</sub> in volcanic plumes: Tracers for remote temperature sensing of fumaroles

**P9: Atsuyuki SUZUKI**

Triple oxygen isotopic composition of nitrate in plants

**P10: Kouhei SAKATA**

Lead isotope in rainwater and aerosol in Hiroshima, Japan

**P11: Yuji ORIHASHI**

Geochronological fingerprint revealed the evolution of the crust underlying Cerro Pampa, Argentine Patagonia: Constraint from LA-ICPMS U-Pb ages for exotic zircons in the Mid-Miocene adakite

**P12: Kanako SAKAMOTO**

The timing and the heating conditions of compound chondrule formation

**P13: Yuichirou NAGAI**

Development of chemical separations of Mo for the study of precise Mo isotope analysis in chondrites

**P14: Haruka KUSUNO**

Development the new extraction system for extremely low amount of cosmogenic  $^{14}\text{C}$  in HED meteorites

**Thursday, November 24**

***Oral presentation***

**Chair: Junji YAMAMOTO (Kyoto University)**

**9:00-9:20**

**Hiroshi HIDAKA**

Ba isotopes of carbonaceous chondrites

**9:20-9:40**

**Ryoichi NAKADA**

Experimental study on stable isotope fractionation of light rare earth elements (LREE) during the adsorption

**9:40-10:00**

**Byeon-Gak CHOI**

High-precision oxygen isotope microanalysis of silicates using NanoSIMS

**10:00-10:20**

**Yoshihiro OTA**

D/H ratios of phosphates in Martian meteorites ~what's the source? ~

**10:20-10:40**

**Seung-Gu LEE**

Geochemical significance of  $^{14}\text{C}$ ,  $^3\text{H}$ ,  $^{18}\text{O}$ ,  $^2\text{H}$  and  $^{87}\text{Sr}/^{86}\text{Sr}$  isotopic data from Haeundae and Dongrae hot spring waters, Busan, South Korea

**10:40-11:00**

***Tea break***

**Chair: Urumu TSUNOGA (Hokkaido University)**

**11:00-11:20**

**Takafumi HIRATA**

High-spatial resolution laser ablation-ICP-Mass Spectrometry for elemental and isotopic analysis of solid materials

**11:20-11:40**

**Masaharu TANIMIZU**

High precision  $^{11}\text{B}/^{10}\text{B}$  analysis with a simplified MC-ICP-MS

**11:40-12:00**

**Satoki OKABAYASHI**

Iron isotopic signature for metal grains of ordinary chondrites determined by LAL-MC-ICPMS technique

**12:00-12:20**

**Sho MUKOYAMA**

New analytical technique for metal-binding proteins using gel electrophoresis-LA-ICPMS

**12:20-12:40**

**van GINNEKEN**

The parent body of the ca. 480 kyr-old Tunguska-like impact over Antarctica

**12:40-14:00**

*Lunch*

**Chair: Sung Hi CHOI (ChungNam National Univerity)**

**14:00-15:00**

**Special talk: Youngsook HUH**

In search of isotopic proxies for continental weathering

**15:00-15:20**

**Minoru KUSAKABE**

Decoupled behavior of CO<sub>2</sub> and He in Lake Nyos, Cameroon

**15:20-15:40**

**Hossein AZIZI**

Geochemistry, Sr-Nd isotopes and Ar-Ar age for adakite rocks in the northern Sanandaj-Sirjan Zone, NW Iran

**15:40-16:00**

*Tea break*

**Chair: Hyeon Cheol KIM (KIGAM)**

**16:00-16:20**

**Junji YAMAMOTO**

Noble gas isotopic constraint on depth of layered mantle boundary

**16:20-16:40**

**Takahito OSAWA**

Separation of noble gas carrier using ultra centrifugation

**16:40-17:00**

**Susumu NOHDA**

A large negative Sr isotope excursion from the Ediacaran paleo- mid-oceanic atoll carbonates in the Gorny Altai Mountains, Siberia: chemostratigraphic correlation and relevant environmental change

17:00-18:30

*Poster presentation (II)*

**Chair: Seung Ryeol LEE (KIGAM) and Tomoyuki SHIBATA (Kyoto University)**

**P15: Keisuke NAGAO**

Noble gases in the Itokawa samples returned by the Hayabusa spacecraft

**P16: Keiko SATO**

Power supply renewal for GVI-5400 mass spectrometer

**P17: Masahiro KOBAYASHI**

Construction of noble gas purification line for highly sensitive halogen determination

**P18: Takehiko SAITO**

Determination of trace amounts of halogens using noble gas mass spectrometry

**P19: Shintaro MATSUDA**

Noble gas study of the KOREAMET Antarctic meteorite collections

**P20: Tsuyoshi TANAKA**

$^{87}\text{Sr}/^{86}\text{Sr}$ ,  $^{18}\text{O}$ , and  $^{13}\text{C}$  in calcareous sandstones indicate quick reaction of  $\text{CO}_2$  and silicate minerals

**P21: Takaaki FUKUOKA**

Strange REE pattern of sediment collected from tributary stream of Arakawa river

**P22: Takuya OHYAMA**

Regional differences in the photochemical reaction paths of NOX estimated from the  $^{17}\text{O}$  tracer of nitrate

**P23: Yuka JOMORI**

Spatial distribution of strontium isotope ratios ( $^{87}\text{Sr}/^{86}\text{Sr}$ ) in Hokkaido

**P24: Mi Kyung CHOO**

Geochemistry of the Cenozoic plateau lavas from the Pali Aike volcanic field and Morro Chico Volcano, southern Patagonia, South America

**P25: Teruyuki MARUOKA**

Comparison of pretreatment methods for extraction of carbonate-associated sulfate

**P26: Akira YAMAGUCHI**

In-situ analyses of platinum group elements in CK chondrite

**P27: Naoko IKEDA**

Sm isotopic compositions of early condensation minerals in carbonaceous chondrites

**P28: Daeyeong KIM**

Fabric analyses of natural blueschists and its implications for seismic anisotropy of the subducting oceanic crust

**P29: Yuyoung LEE**

Petrogenesis of 2.51 Ga tonalitic migmatites from Daeijak Island, central Korea: Implications for disequilibrium melting of igneous source

18:30-

*Dinner*

**Friday, November 25**

***Oral presentation***

**Chair: Mi Jung LEE (KOPRI)**

**9:00-10:00**

**Special talk: Jun-ichi MATSUDA**

The isotopic evolution model of mantle-atmosphere system: Osaka model

**10:00-10:20**

**Taehoon KIM**

Li abundances and isotopic compositions of Oman ophiolites: constraints on hydrothermal alteration of the ancient oceanic crust

**10:20-10:40**

**Yusuke MIYAZAKI**

Implantation and diffusion of SW-origin noble gases at the asteroids's surface

**10:40-11:00**

**Ichiro KANEOKA**

How can we constrain the chemical state of the Earth's interior based on radiogenic and noble gas isotopes? - an example of application of isotopic ratios in Earth sciences

**11:00-11:20**

**Wan HONG**

Ultra-rare isotope analysis by accelerator mass spectrometry (AMS)

**11:20-11:40**

**Tsuyoshi IIZUKA**

Geochronology, geochemistry and Raman spectroscopy of meteorite zircons

**Chair: Takafumi HIRATA (Kyoto Univ.) and Keisuke NAGAO (Univ. Tokyo)**

**11:40-12:00**

***Business meeting***

**12:00 Closing**

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**1) Maximum size for poster presentation is 90 cm (horizontal) x 150 cm (vertical).  
The poster will be displayed on table during discussion.**

**2) 20 minutes will be allocated to each oral presentation including discussion.  
15 minutes talk may be preferable.**

**3) LCD projector is available.**  
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