

SPEAKERS AND EVENTS	TIME	TITLES
Day 1-Sunday, March 25, 2018		
Naohiro Yoshida, Huiming Bao,	8:30 -8:45	Opening remark
LSU Dean or President	8:45-8:55	Welcometo LSU and Louisiana
<u>Dmitri Babikov</u>	9:00-9:25	Several Levels of Theory for Description of Mass-Independent Fractionation of Oxygen Isotopes in the Ozone-Forming Reaction
Lambert Baraut-Guinet, <u>Fran çois Robert</u> , Pierre Cartigny, Peter Reinhardt	9:25-9:50	Unusual combination of mass dependent and mass independent fractionation processes in ozone
Huiming Bao, Haiyang Luo, Yongbo Peng, and Xiaobin Cao	9:50-10:15	Non-mass-dependent isotope fractionation produced by macroscopic mass transfer processes
<i>Morning Pastry-Coffee-Tea break</i>		<i>10:15-10:45</i>
<u>Naohiro Yoshida</u>	10:45-11:05	Overview of "Handbook of Stable Isotopologues"
<u>Xuefang Li</u> , Yun Liu	11:05-11:30	The theory of diffusional isotope effects in solids
Douglas Rumble III, Pei-Ling Wang, Hung Lin, Yueh-Ting Lin, Tzu-Hsuan Tu	11:30-11:55	Clumped Isotopologues of Methane: Resolved Measurements of $^{13}\text{CDH}_3$ and $^{12}\text{CD}_2\text{H}_2$ from a Taiwan Mud Volcano
<u>Huanting Hu</u> , Laurence Y. Yeung, Jeanine L. Ash, Nick Rollins, William M. Berelson	11:35-12:20	Constraints on marine oxygen cycling and respiration from five $\text{O}_2$ isotopologues ( $^{32}\text{O}_2$ , $^{33}\text{O}_2$ , $^{34}\text{O}_2$ , $^{35}\text{O}_2$ , and $^{36}\text{O}_2$ )
<i>Lunch and break</i>		<i>12:20-14:00</i>
<u>Mang Lin</u> , Xiaolin Zhang, Menghan Li, Yilun Xu, Zhisheng Zhang, Jun Tao,	14:00-14:25	A five-sulfur-isotope ( $^{32}\text{S}$ , $^{33}\text{S}$ , $^{34}\text{S}$ , $^{35}\text{S}$ , and $^{36}\text{S}$ ) approach to decode stable sulfur isotopic anomalies in present-day atmospheric sulfates:
Binbin Su, Lanzhong Liu, Yanan Shen and Mark H. Thiemens	(left blank)	Two distinct processes and implications for the Archean record
<u>Jeehyun Yang</u> , Alexander Hull, Robert W. Field, Shuhei Ono	14:25-14:50	Mass Independent Sulfur Isotope Fractionation during Carbonyl Sulfide Photolysis
<u>Lei Geng</u> , Joel Savarino, Pierre Cartigny	14:50-15:15	Sulfur isotope systematics of sulfate produced by UV and OH oxidations in a large atmospheric environmental chamber
<i>Afternoon Coffee-Tea break</i>		<i>15:15-15:45</i>
Jingyuan Shao, Pengzhen He, Qianjie Chen, Yuxuan Wang, Lin Zhang, Zhouqing Xie and <u>Becky Alexander</u>	15:45-16:10	Heterogeneous Sulfate Aerosol Formation Mechanisms in Chinese Haze Events: Air Quality Model Assessment using Observations of Sulfate $\Delta^{17}\text{O}$ in Beijing
Lianfang Wei, <u>Huiming</u>	16:10-16:35	A changing sulfate formation pathway constrained by

<u>Bao, Zifa Wang, Pingqing Fu</u>		sulfur and triple oxygen isotope compositions of aerosol sulfate
<u>S.O. Danileache, M. Shinkai, E. Simoncini, T. Grassi</u>	16:35-17:00	The origin of stratospheric sulfur aerosols studied by a 1D atmospheric isotopic model
<u>David Johnston, Anna Waldeck</u>	17:00-17:25	What information is encoded within the triple oxygen isotope composition of marine sulfate?
<i>Reception</i>		<i>18:00-20:00</i>
Day 2 -Monday, March 26, 2018		
<u>Thomas R öckmann, Magdalena Hofmann, Dipayan Paul, Getachew Adnew, Elena Popa</u>	8:30-8:55	High precision isotope analysis of $^{17}\text{O}$ in $\text{CO}_2$ on oxygen ion fragments using the MAT 253 Ultra instrument
<u>Mao-Chang Liang, Sally Newman, Amzad Laskar</u>	8:55-9:20	Triple oxygen isotope analysis of tropospheric $\text{CO}_2$ on the two sides of the Pacific Ocean
<u>Jordan Gibbons, Zachary Sharp, Uwe Brand, and Tyler B. Coplen</u>	9:20-9:45	Calcite-water isotopic equilibrium fractionation: natural vs. synthetic samples
<u>Siting Zhang, Yun Liu</u>	9:45-10:10	Triple oxygen isotope fractionation during phosphoric acid digestion of carbonates
<i>Morning Pastry-Coffee-Tea break</i>		<i>10:10-10:40</i>
<u>Yun Liu, Yining Zhang</u>	10:40-11:05	Small $\Delta^{17}\text{O}$ anomalies caused by Diagonal Born-Oppenheimer Correction (DBOC)
<u>Martin F Miller</u>	11:05-11:30	Oxygen isotope ratios in snow and ice cores from the coldest regions on Earth – more than a temperature proxy
<u>Chen Zhu, Yilun Zhang, Augustus Scheafer, Donald Rimstidt, Honglin Yuan, and Rudolf Bastian Georg</u>	11:30-11:55	Silicon isotope doping method to measure silicate mineral reaction rates
<u>Ulrike Wacker, Nicholas Lloyd, Johannes Schwieters</u>	11:55-12:15	High resolution sector IRMS: extending scientific boundaries
<i>Lunch and break</i>		<i>12:15-14:00</i>
<u>Maria Elena Popa, Dipayan Paul, Christof Janssen, Thomas R öckmann</u>	14:00-14:25	$\text{H}_2$ clumped isotope measurements at natural isotopic abundances with the MAT 253 ULTRA instrument
<u>Ivan Prokhorov, Tobias Kluge, and Christof Janssen</u>	14:25-14:50	Precise, direct, simultaneous spectroscopic measurements of rare and doubly-substituted $\text{CO}_2$ isotopologues
<u>Amzad Hussain Laskar, Getachew A. Andrew, Thomas R öckmann</u>	14:50-15:15	High precision measurements of clumped isotopes in atmospheric $\text{O}_2$ using MAT 253 ULTRA
<u>Xiaobin Cao, Huiming</u>	15:15-15:40	The real difference between biotic and abiotic

Bao, and Yongbo Peng		methane
<i>Afternoon Coffee-Tea break</i>		<i>15:40-16:10</i>
<u>Yingkui Xu</u> and Dan Zhu	16:10-16:30	Mg isotope fractionation in basaltic melt under thermal gradient in natural settings
<u>Liping Qin</u> and Y. Zhang	16:30-16:50	Molybdenum isotope fractionation during evaporation induced by thermal metamorphism of chondrites
<u>Jim Lyons</u>	16:50-17:10	Pressure broadening in SO <sub>2</sub> and implications for S-MIF
<u>Yining Zhang</u> , Yun Liu	17:10-17:30	Equilibrium isotope fractionation theory of gaseous molecules under supercold conditions
<i>Dinner (no conference arrangement; on your own)</i>		
Day 3 -Tuesday, March 27, 2018		
<u>Shohei Hattori</u> , Asuka Tsuruta, Yoshinori Iizuka, Koji Fujita, Ryu Uemura, Sumito Matoba, Naohiro Yoshida	8:30-8:50	Reconstruction of nitrogen isotopic composition of nitrate preserved in high-accumulation dome at South East Greenland
S.C. Clark, A. Mastorakis, J. Granger, A. Aguilar-Islas and M. G. Hastings	8:50-9:10	Arctic Sea Ice: investigating the origin of nitrate using $\delta^{15}\text{N}$ , $\delta^{18}\text{O}$ and $\Delta^{17}\text{O}$
<u>Sakae Toyoda</u> , Osamu Yoshida, Hiroaki Yamagishi, Ayako Fujii, Naohiro Yoshida, Syuichi Watanabe	9:10-9:30	Origin of nitrous oxide dissolved in deep ocean water deduced from concentration and isotopocule analyses
<u>Jiubin Chen</u> , Hongming Cai, Shengliu Yuan, Zhengrong Wang, Jean-Louis Birck	9:45-10:10	Possible mechanisms triggering the mass-independent fractionation of even mercury isotopes
<i>Morning Pastry-Coffee-Tea break</i>		<i>10:10-10:25</i>
<u>Yuyang He</u> , Huiming Bao, Shanggui Gong	10:25-10:45	Determining high-dimensional isotope parameters $\theta$ and $Z$ in systems with mass transfer
<u>Weiguo Liu</u>	10:45-11:05	Comparison of hydrogen isotopic fractionation of leaf wax from terrestrial monocotyledonous and dicotyledonous plants
Wendell W. Walters, Nadia Colombi, and Meredith G. Hastings	11:05-11:25	“Fingerprinting” Vehicle Derived Ammonia Utilizing Nitrogen Stable Isotopes
Swamp tour		11:30-16:30
Crawfish boiler party		17:00-20:00
Day 4 -Wednesday, March 28, 2018		
<u>Meredith G. Hastings</u> , Wendell W. Walters,	8:30-8:55	Investigating the N and O isotopic composition of NO <sub>x</sub>

Jiajue Chai, David M. Miller		
Jiajue Chai, David J. Miller, Felix Guo, Curtis Dell, Heather Karsten and Meredith G. Hastings	8:55-9:20	Investigating atmospheric nitrous acid (HONO) emissions from various sources via nitrogen and oxygen isotopic composition
Shohei Hattori, Atsushi Matsuki, Qi Liu, Kazuki Kamezaki, Naohiro Yoshida	9:20-9:45	Seasonal variations of triple oxygen isotopes of atmospheric nitrate and sulfate at Noto Peninsula, Japan
<i>Morning Pastry-Coffee-Tea break</i>		<i>9:45-10:15</i>
Hao Xie, Camilo Ponton, Michael J Formolo, Michael Lawson, Brian K Peterson, Max K Lloyd, Alex Sessions, John M Eiler	10:15-10:40	Position-specific hydrogen isotope equilibria of propane
Alexis Gilbert, Thomas Giunta, Florin Musat, Barbara Sherwood Lollar, Keita Yamada, Naohiro Yoshida, and Yuichiro Ueno	10:40-11:05	Bacterial oxidation of propane in Southern Ontario revealed by positionspecific isotope analyses
Maxime Julien, Alexis Gilbert, Keita Yamada, Mayuko Nakagawa, Naohiro Yoshida	11:05-11:30	Deconvolution of isotopic fractionation factors associated with lipid biosynthesis
Changjie Liu, Greg P. Mcgovern, Peng Liu, Heng Zhao, Toti Larson, Juske Horita	11:30-11:55	Position-Specific Isotope Compositions of Propane from Natural Gases by Quantitative NMR
<i>Lunch and break</i>		<i>11:55-14:00</i>
V. Joubert, G.S. Remaud, S. Akoka, M. Grand, V. Silvestre, R.J. Robins	14:00-14:25	Latest developments and applications of Position-Specific Isotope Analysis by NMR spectrometry
Joshua A Haslun, Nathaniel E. Ostrom, Clarisse Finders, Eric L. Hegg, Peggy H. Ostrom	14:25-14:50	New Insights into Isotopic Discrimination during N <sub>2</sub> O production by Bacteria
Kristýna Kantnerová, Báa Tuzson, Lukas Emmenegger, Stefano M. Bernasconi & Joachim Mohn	14:50-15:15	Site-specific analysis of N <sub>2</sub> O clumped isotopic species by laser spectroscopy
(to be added)		
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<b>POSTERS</b>	
John W. Robinson, Jo ð Savarino, Lei Geng and <u>Becky Alexander</u>	Nitrate preservation and recycling on the West Antarctic Ice Sheet over major climate transitions from observations of ice-core $\delta^{15}\text{N}(\text{NO}_3^-)$ and a snow chemistry model
<u>Shanggui Gong</u> , Yongbo Peng, Huiming Bao, Dong Feng, Peter Crockford, Harry H Roberts, Duofu Chen	The 330 values for the process of sulfate reduction via anaerobic oxidation of methane
<u>Maxime Julien</u> , Mark Goldman, Naohiro Yoshida, Alexis Gilbert	Reaction Mechanism Generator as a tool for position-specific isotope measurement by on-line pyrolysis
Kushi Kudo, Keita Yamada, Sakae Toyoda, Naohiro Yoshida, Daisuke Sasano, Naohiro Kosugi, Masao Ishii, Hisayuki Yoshikawa, Akihiko Murata, Hiroshi Uchida, Shigeto Nishino	Source of dissolved methane in the western Arctic Ocean
<u>Xiangzhong Li</u> , Weiguo Liu, Carmala N. Garziane	Clumped isotope composition of Recent-ostracods from lakes on the northeastern Qinghai-Tibet Plateau, China
<u>Zhengjie Li</u> , Meredith G. Hastings, Wendell W. Walters, Yunting Fang	Seasonal variations of nitrogen and oxygen isotopic ratios of nitrate from precipitation in a Northeastern Chinese polluted mega city
Tong Fang, <u>Yun Liu</u>	Nuclear volume isotope effects on Hf-W dating and $^{182}\text{W}$ heterogeneity in mantle
<u>Xie Luhua</u> , Ye Feng, Wang Zhibing, Wei Gangjian	Multiple stable isotopes constrainsulfate and water changes across salinity gradient in Pearl RiverEstuary, China
<u>Martin F Miller</u>	Standardizing the reporting of high precision $\Delta^{17}\text{O}$ values of silicate rocks and minerals
<u>Joachim Mohn</u> , Sakae Toyoda, Heiko Moossen, Christina Biasi, Tracey Jacksier, Sarah Eggleston, Longfei Yu, Naohiro Yoshida and Paul Brewer	Development of new N <sub>2</sub> O reference materials for $\delta^{15}\text{N}$ , $\delta^{18}\text{O}$ and $^{15}\text{N}$ site preference within the EMPIR project SIRS
Fran çois Robert, Adriana Gonzalez, R émi Duhamel, Sylvie Derenne	Nitrogen isotopic fractionation in hydrocarbon plasma
<u>Dong, Zhang</u>	The effects of purified methods on $^{18}\text{O}$ determination for standard barite and natural barites precipitated from different water samples