

## **LIFETIME PUBLICATIONS:**

### **(i) Peer-Reviewed:**

### **(c) *Published Journal Articles:***

Spencer, C. and **Kim, S.-T.** (2015) Carbonate clumped isotope paleothermometry: a review of recent advances in CO<sub>2</sub> gas evolution, purification, measurement and standardization techniques. *Geosciences Journal* **19**, 357-374.

**Kim, S.-T.**, Coplen, T. B. and Horita J. (2015) Normalization of stable isotope data for carbonate minerals: Implementation of IUPAC guidelines. *Geochim. Cosmochim. Acta* **158**, 276-289. **(Top 25 hottest articles in GCA between Apr. and Jun. 2015) (Times Cited: 1)**

Antonelli, M. A., **Kim, S.-T.**, Peters, M., Labidi, J., Cartigny, P., Walker, R. J., Lyons, J. R., Hoek, J. and Farquhar, J. (2014) An early inner Solar system origin for anomalous sulfur isotopes in differentiated protoplanets. *Proceedings of the National Academy of Sciences of the United States of America* **111**, 17749-17754.

Crowe, S. A., Paris, G., Katsev, S., Jones, C., **Kim, S.-T.**, Zerkle, A., Nomosatryo, S., Fowle, D. A., Adkins, J., Sessions, A., Farquhar, J. and Canfield, D. E. (2014) Sulfate was a trace constituent of Archean seawater. *Science* **346**, 735-739. **(Times Cited: 1)**

**Kim, S.-T.**, Klein Gebbinck, C., Mucci, A. and Coplen, T. B. (2014) Oxygen isotope systematics in the aragonite-CO<sub>2</sub>-H<sub>2</sub>O-NaCl system up to 0.7 mol/kg ionic strength at 25 °C. *Geochim. Cosmochim. Acta* **137**, 147-158.

Franz, H. B., **Kim, S.-T.**, Farquhar, J., Day, J. M. D., Economos, R. C., McKeegan, K. D., Schmitt, A. K., Irving, A. J., Hoek, J. and Dottin III, J. (2014) Isotopic links between atmospheric chemistry and the deep sulphur cycle on Mars. *Nature* **508**, 364-368. **(Times Cited: 3)**

Klein Gebbinck, C. D., **Kim, S.-T.**, Knyf, M. and Wyman, J. (2014) A new online technique for the simultaneous measurement of  $\delta^{13}\text{C}$  of dissolved inorganic carbon (DIC) and  $\delta^{18}\text{O}$  of water from a single solution sample using continuous flow isotope ratio mass spectrometry (CF-IRMS). *Rapid Commun. Mass Spectrom.* **28**, 553-562. **(Times Cited: 1)**

Kim, J.-W., Kogure, T., Yang, K., **Kim, S.-T.**, Jang, Y.-N., Baik, H.-S. and Geesey, G. (2012) The characterization of CaCO<sub>3</sub> in a geothermal environment: A SEM/TEM-EELS study. *Clays & Clay Minerals* **60**, 484-495.

**Kim, S.-T.**, Park, S.-S. and Yun, S.-T. (2012) Influence of dissolved ions on determination of oxygen isotope composition of aqueous solutions using the CO<sub>2</sub>-H<sub>2</sub>O equilibration method. *Rapid Commun. Mass Spectrom.* **26**, 2083-2092. **(Times Cited: 2)**

Kim, J.-S., Woo, K. S., Hong, W., An, D.-I. and **Kim, S.-T.** (2011) Paleoclimatic reconstruction using bivalves (Veneridae) from the Daejukri (Seosan) and Heohyeonri (Gimhae) shell mounds. *Journal of the Geological Society of Korea* **47**, 485-497.

Wu, N., Farquhar, J., Strauss, H., **Kim, S.-T.** and Canfield, D. E. (2010) Evaluating the S-isotope fractionation associated with Phanerozoic pyrite burial. *Geochim. Cosmochim. Acta* **74**, 2053-2071. **(Times Cited: 18)**

**Kim, S.-T.**, Kang, J. O., Yun, S.-T., O'Neil, J. R. and Mucci, A. (2009) Experimental studies of oxygen isotope fractionation between rhodochrosite (MnCO<sub>3</sub>) and water at low temperatures. *Geochim. Cosmochim. Acta* **73**, 4400-4408. **(Times Cited: 6)**

Guo, Q., Strauss, H., Kaufman, A. J., Schröder, S., Gutzmer, J., Wing, B., Baker, M. A., Bekker, A., Jin, Q., **Kim, S.-T.** and Farquhar, J. (2009) Reconstructing Earth's surface oxidation across the Archean-Proterozoic transition. *Geology* **37**, 399-402. **(Times Cited: 72)**

**Kim, S.-T.**, Mucci, A. and Taylor, B. (2007) Phosphoric acid fractionation factors for calcite and aragonite between 25 and 75°C: Revisited. *Chem. Geol.* **246**, 135-146. **(Top 25 downloaded articles in Chemical Geology between Oct. and Dec. 2007, (Times Cited: 56)**

Farquhar, J., **Kim, S.-T.** and Masterson, A. (2007) Implications from sulfur isotopes of the Nakhla meteorite for the origin of sulfate on Mars. *Earth Planet. Sci. Lett.* **264**, 1-8. **(Times Cited: 18)**

**Kim, S.-T.**, O'Neil, J. R., Hillaire-Marcel, C. and Mucci, A. (2007) Oxygen isotope fractionation between synthetic aragonite and water: Influence of temperature and Mg<sup>2+</sup> concentration. *Geochim. Cosmochim. Acta* **71**, 4704-4715. **(Top 25 downloaded articles in GCA between Oct. and Dec.2007, Times Cited: 82)**

**Kim, S.-T.**, Hillaire-Marcel, C. and Mucci, A. (2006) Mechanisms of equilibrium and kinetic oxygen isotope effects in synthetic aragonite at 25°C. *Geochim. Cosmochim. Acta* **70**, 5790-5801. **(Top 25 downloaded articles in GCA between Oct. and Dec. 2006, Times Cited: 31)**

**Kim, S.-T.** and O'Neil, J. R. (2005) Comment on "An experimental study of oxygen isotope fractionation between inorganically precipitated aragonite and water at low temperatures" by G.-T. Zhou and Y.-F. Zheng. *Geochim. Cosmochim. Acta* **69**, 3195-3197. **(Times Cited: 9)**

Choi, S.-G., **Kim, S.-T.** and Lee, J. G. (2003) Stable isotope systematics of Ulsan Fe-W skarn deposit, Korea. *J. Geochem. Explor.* **78-79**, 601-606. **(Times Cited: 1)**

**Kim, S.-T.** and O'Neil, J. R. (1997) Equilibrium and nonequilibrium oxygen isotope effects in synthetic carbonates. *Geochim. Cosmochim. Acta* **61**, 3461- 3475. **(Times Cited: 773)**