

TOMOKI MOCHIZUKI

Dr. Environmental Health Sciences

Research Assistant Professor at University of Shizuoka

Tel: +81-54-264-5739

E-mail: t-mochizuki@u-shizuoka-ken.ac.jp

Research Keywords

Volatile organic compounds, Organic aerosol, Forest ecosystem, Atmospheric pollution, Climate change, Carbon cycle

Education

Apr. 2011-Mar. 2014: University of Shizuoka Dr. Environmental Health Sciences

Apr. 2009-Mar. 2011: University of Shizuoka Master of Science

Apr. 2005-Mar. 2009: Tokai University Bachelor of Education

Experience

Apr. 2016-Present Research Assistant Professor,
School of Food and Nutritional Sciences, University of Shizuoka

Oct. 2015-Mar. 2016 Part-Time Fellow,
Institute of Low Temperature Science, Hokkaido University

Apr. 2014-Oct. 2015 Research Fellow,
Institute of Low Temperature Science, Hokkaido University
“Composition, origin, transformation and hygroscopic properties of organic aerosols in East Asia and the North Pacific”,
Grant-in-Aid for Scientific Research (S) (Grant No. 24221001)

Publications

- [12] Mochizuki T., Watanabe M., Koike T., Tani A., Monoterpene emissions from needles of hybrid larch F1 (*Larix gmelinii* var. *japonica* × *Larix kaempferi*) grown under elevated carbon dioxide and ozone, *Atmospheric Environment*, 148, 197-202, 2017
- [11] Mochizuki T., Kawamura K., Aoki K., Sugimoto N., Long-range atmospheric transport of volatile monocarboxylic acids with Asian dust over a high mountain snow site, central Japan, *Atmospheric Chemistry and Physics*, 16, 14621-14633, 2016.
- [10] Tyagi P., Kawamura K., Bikkina S., Mochizuki T., Aoki K., Hydroxy fatty acids in snow pit samples from Mount Tateyama in central Japan: Implications for atmospheric transport of microorganisms and plant waxes associated with Asian dust, *Journal of Geophysical Research: Atmospheres*, 121, 13641-13660, 2016.
- [9] Mochizuki T., Kawamura K., and Aoki K.; Water-soluble organic nitrogen in high mountain snow samples from central Japan. *Aerosol and Air Quality Research*, 16, 632-639, 2016.
- [8] Mochizuki T., Miyazaki Y., Ono K., Wada R., Takahashi Y., Saigusa N., Kawamura K., and Tani A.: Emissions of biogenic volatile organic compounds and subsequent formation of secondary organic aerosols in a *Larix kaempferi* forest. *Atmospheric Chemistry and Physics*, 15, 12029-12041, 2015.
- [7] Mochizuki T., Saito T., Hirai G., Miwa M., Yonekura T., and Tani A.: Development of a reliable method to determine monoterpene emission rate of plants grown in an open-top chamber. *Journal of Agricultural Meteorology*, 71(4), 100-104, 2015.
- [6] Mochizuki T., Tani A., Takahashi Y., Saigusa N., and Ueyama M.: Long-term measurement of terpenoid flux above a *Larix kaempferi* forest using a relaxed eddy accumulation method. *Atmospheric Environment*, 83, 53-61, 2014.
- [5] Matsunaga S., Niwa S., Mochizuki T., Tani A., Kusumoto D., Utsumi Y., Enoki T., and Hiura T.: Seasonal variation in basal emission rates and composition of mono- and sesquiterpenes emitted from dominant conifers Japan. *Atmospheric Environment*, 69, 124-130, 2013.
- [4] Chang J., Ren Y., Shi Y., Zhu Y., Ge Y., Hong S., Jiao L., Lin F., Peng C., Mochizuki T., Tani A., Mu Y., and Fu C.: An inventory of biogenic volatile organic compounds for a subtropical urban-rural complex. *Atmospheric Environment*, 56, 115-123, 2012.
- [3] Matsunaga S., Mochizuki T., Ohno T., Endo Y., Kusumoto D., and Tani A.: Monoterpene and sesquiterpene emissions from Sugi (*Cryptomeria japonica*) based on a branch enclosure measurements. *Atmospheric Pollution Research*, 2, 16-23, 2011.
- [2] Mochizuki T., Tani, A., Yasuda, T., Ueyama, M., Hamotani, K., Takahashi, Y., Yonemura S., Okumura, T., Tohno, S., Miyama, T., and Kominami, Y.; Development of a portable relaxed eddy accumulation device and its application for terpenoids flux measurement above a Larch forest. *Eco-Engineering*, 23(3), 81-88, 2011. (Japanese)

- [1] Mochizuki T., Yukiko E., Matsunaga S., Chang J., Ge Y., Huang C., and Tani A.: Factors affecting monoterpene emission from *Chamaecyparis obtuse*. *Geochemical Journal*, 45, e15-e22, 2011.