Japan Geoscience Union Meeting 2014
(28 April - 02 May 2014 at Pacifico YOKOHAMA, Kanagawa, Japan)
©2014. Japan Geoscience Union. All Rights Reserved.

AAS22-23 Room:511 Time:May 1 14:30-14:45

Impact of VOC emission from gasoline cars on ozone formation

HIROYUKI, Yamada[1*] ; INOMATA, Satoshi[2] ; TANIMOTO, Hiroshi[2]

[1]National Traffic Safety and Environment Laboratory, [2]National Institute for Environmental Studies

Ozone has been known that it was produced by the atmospheric reactions of volatile organic compounds (VOC) and NOx. The impact of VOC on ozone formation varies species by species. Thus, to evaluate the ozone formation in atmosphere, discussion based of ozone formation potential (OFP) is important.

This study discussed VOC emission from gasoline vehicle with OFP. Usually it is though that main source of VOC from vehicles were tailpipe emissions, however our former study suggested that main source from gasoline cars is not tailpipe emissions but evaporative emissions. So in this study, addition to tailpipe emissions, OFP of evaporative emissions were measured.

Keywords: ozone, ozone formation potential, evaporative emissions, gasoline cars, tailpipe emissions