



Aircraft observation of microphysical characteristics of continental shallow cumulus in Eastern China

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In 2016 to 2017, shallow cumulus clouds were detected in Zhejiang Province and Guangdong Province in southern of China. The observational aircraft is MA60 equipped with cloud microphysical probes of DMT. Based on the results of this experiment, the microphysical characteristics of warm cumulus cloud were analyzed, and the cloud parameters such as cloud droplet concentration, liquid water content, effective radius and relative divergence were obtained. On the other hand, in 2016, the warm cumulus cloud was catalyzed by burning warm clouds catalyst in the same flight. The microphysical response of the catalyzed cloud was analyzed. The results show that the concentration, the scale and the dispersion of cloud droplets are obviously increased with the catalytic time.