

CONTENTS

EDITORIAL NOTES

- 1017 **Understanding Third Pole Atmospheric Dynamics and Land Surface Processes and Their Associations with the Cryosphere, Air Quality, and Climate Change**
Yun Qian, Hailong Wang, Chuanfeng Zhao, Chun Zhao, Siyu Chen, Xiao-Ming Hu, and Shichang Kang

ORIGINAL PAPERS

- 1021 **Intensity Evolution of Zonal Shear Line over the Tibetan Plateau in Summer: A Perspective of Divergent and Rotational Kinetic Energies**
Xiaohong BAO and Xiuping YAO
- 1034 **Seasonal and Diurnal Variations of Cloud Systems over the Eastern Tibetan Plateau and East China: A Cloud-resolving Model Study**
Jinghua CHEN, Xiaoqing WU, Chunsong LU, and Yan YIN
- 1050 **Interannual Influences of the Surface Potential Vorticity Forcing over the Tibetan Plateau on East Asian Summer Rainfall**
Chen SHENG, Bian HE, Guoxiong WU, Yimin LIU, and Shaoyu ZHANG
- 1062 **Comparative Analysis of the Characteristics of Rainy Season Raindrop Size Distributions in Two Typical Regions of the Tibetan Plateau**
Gaili WANG, Ran LI, Jisong SUN, Xiangde XU, Renran ZHOU, and Liping LIU
- 1079 **Improved Parameterization of Snow Albedo in WRF + Noah: Methodology Based on a Severe Snow Event on the Tibetan Plateau**
Lian LIU, Massimo MENENTI, Yaoming MA, and Weiqiang MA
- 1103 **The Impact of Tibetan Plateau Snow Cover on the Summer Temperature in Central Asia**
Xuke LIU, Xiaojing JIA, Min WANG, and Qifeng QIAN
- 1115 **Improving Simulations of Vegetation Dynamics over the Tibetan Plateau: Role of Atmospheric Forcing Data and Spatial Resolution**
Zhijie KANG, Bo QIU, Zheng XIANG, Ye LIU, Zhiqiang LIN, and Weidong GUO
- 1133 **Change in Precipitation over the Tibetan Plateau Projected by Weighted CMIP6 Models**
Yin ZHAO, Tianjun ZHOU, Wenxia ZHANG, and Jian LI
- 1151 **Impacts of Topographic Complexity on Modeling Moisture Transport and Precipitation over the Tibetan Plateau in Summer**
Gudongze LI, Haoming CHEN, Mingyue XU, Chun ZHAO, Lei ZHONG, Rui LI, Yunfei FU, and Yanhong GAO
- 1167 **Evaluating the Ozone Valley over the Tibetan Plateau in CMIP6 Models**
Kequan ZHANG, Jiakang DUAN, Siyi ZHAO, Jiankai ZHANG, James KEEBLE, and Hongwen LIU
- 1184 **Influence of South Asian Biomass Burning on Ozone and Aerosol Concentrations Over the Tibetan Plateau**
Junhua YANG, Shichang KANG, Yuling HU, Xintong CHEN, and Mukesh RAI

LETTERS AND NOTES

- 1198 **The Warming of the Tibetan Plateau in Response to Transient and Stabilized 2.0°C/1.5°C Global Warming Targets**
Jintao ZHANG, Qinglong YOU, Fangying WU, Ziyi CAI, and Nick PEPIN

On the cover

The cover shows snow pit sampling over a Tibetan glacier used to measure black carbon, dust, and other chemical species deposited from the atmosphere (photo credit: Shichang KANG). The special issue, "Third Pole Atmospheric Physics, Chemistry, and Hydrology", solicited a total of 12 articles, covering a wide range of research topics, including atmospheric dynamics and clouds, snow and land surface processes, climate change implications, and air quality over the Tibetan Plateau region.

Advances in Atmospheric Sciences

For more information:

<http://www.iapjournals.ac.cn/aas>

<http://link.springer.com/journal/376>