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**EDITORIAL**

85 *TianJun Zhou*

Toward better watching of the deep atmosphere over East Asia (doi: 10.26464/epp2019010)

**LETTER**

87 *JinQiang Zhang, Yi Liu, HongBin Chen, ZhaoNan Cai, ZhiXuan Bai, LingKun Ran, Tao Luo, Jing Yang, YiNan Wang, YueJian Xuan, YinBo Huang, XiaoQing Wu, JianChun Bian, and DaRen Lu*

A multi-location joint field observation of the stratosphere and troposphere over the Tibetan Plateau (doi: 10.26464/epp2019017)

**RESEARCH ARTICLES**

93 *Zhou Tang, Dong Guo, YuCheng Su, ChunHua Shi, ChenXi Zhang, Yu Liu, XiangDong Zheng, WenWen Xu, JianJun Xu, RenQiang Liu, and WeiLiang Li*

Double cores of the Ozone Low in the vertical direction over the Asian continent in satellite data sets (doi: 10.26464/epp2019011)

102 *XiuShu Qie, ShanFeng Yuan, HongBo Zhang, RuBin Jiang, ZhiJun Wu, MingYuan Liu, ZhuLing Sun, YunJiao Pu, JinLiang Li, Abhay Srivastava, ZiLong Ma, and GaoPeng Lu*

Propagation of positive, negative, and recoil leaders in upward lightning flashes (doi: 10.26464/epp2019014)

111 *YongPing Wang, GaoPeng Lu, Ming Ma, HongBo Zhang, YanFeng Fan, GuoJin Liu, ZheRun Wan, Yu Wang, Kang-Ming Peng, ChangZhi Peng, FeiFan Liu, BaoYou Zhu, BinBin Ni, XuDong Gu, Long Chen, Juan Yi, and RuoXian Zhou*

Triangulation of red sprites observed above a mesoscale convective system in North China (doi: 10.26464/epp2019015)

126 *Juan Huo, DaRen Lu, and WenJing Xu*

Application of cloud multi-spectral radiances in revealing cloud physical structures (doi: 10.26464/epp2019016)

136 *Wen Yi, XiangHui Xue, JinSong Chen, TingDi Chen, and Na Li*

Quasi-90-day oscillation observed in the MLT region at low latitudes from the Kunming meteor radar and SABER (doi: 10.26464/epp2019013)

147 *Xian Chen, Zhong Zhong, YiJia Hu, Shi Zhong, Wei Lu, and Jing Jiang*

Role of tropical cyclones over the western North Pacific in the East Asian summer monsoon system (doi: 10.26464/epp2019018)

157 *Yang Li, QuanLiang Chen, XiaoRan Liu, Nan Xing, ZhiGang Cheng, HongKe Cai, Xin Zhou, Dong Chen, XiaoFei Wu, and MingGang Li*

The first two leading modes of the tropical Pacific and their linkage without global warming (doi: 10.26464/epp2019019)

166 *Jian Rao, YueYue Yu, Dong Guo, ChunHua Shi, Dan Chen, and DingZhu Hu*

Evaluating the Brewer–Dobson circulation and its responses to ENSO, QBO, and the solar cycle in different reanalyses (doi: 10.26464/epp2019012)

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**COVER**

In Wang Y. P. et al. (10.26464/epp2019015), the coordinated observations from two stations (in Xinzhou and Jinshan) on the night of 8 August 2017 confine the red sprites above the trailing stratiform region of a mesoscale convective system in North China. Red diamonds indicate the locations of sprite-producing positive CG (cloud-to-ground) strokes, and gray crosses and magenta pluses indicate the locations of negative and positive CG strokes. Also plotted are the red-enhanced images of the sprites, their electric field signals, and histograms of peak currents for the positive and negative CGs. See pages 111–125.