

空间物理学·大地测量学

- 3691 地磁场中电子束结构运动的横向约束与周期振荡 焦鹿怀, 葛亚松, 张援农, 郭英杰, 冯明航, 付松
- 3704 极区电离层闪烁指数和对流速度关系的建模研究 陆盛, 邢赞扬, 邓忠新, 张清和, 王勇, 王成, 冯健, 马羽璋, 夏凯
- 3714 北京延庆钠层上边界的平均特性研究 徐亦萌, 林兆祥, 杨国韬, 王继红, 程学武, 李发泉, 杨勇, 杜丽芳, 焦菁, 荀宇畅, 郑浩然, 吴佛菊, 董毅
- 3728 基于中国地磁台网数据的太阳静日期间地磁场 Z 分量日变化幅度分析 赵旭东, 何宇飞, 李琪, 刘晓灿
- 3743 用于空间中高能离子探测的飞行时间 (TOF) 质谱仪——发展现状与展望 张伟杰, 张坤毅, 张贤国, 叶依众
- 3759 短波红外三维亚像元低层水云散射效应对二氧化碳反演的影响分析 白文广, 张鹏, 卢乃锰, 张文建, 马刚, 漆成莉, 刘辉
- 3770 地球变形近似解析解的构建及应用 周江存, 潘尔年, 孙和平, 徐建桥, 陈晓东, 崔小明
- 3780 利用 GNSS 垂直位移研究长江流域陆地水储量变化的时空分布特征 汤苗, 钟萍, 姜中山, 刘晚纯, 成帅, 杨兴海
- 3797 GNSS-A 直线测量模式及航迹组合优化分析 马越原, 杨元喜, 曾安敏
- 3809 顾及收发分置影响的海洋大地基准声线跟踪定位方法 辛明真, 葛茂荣, 阳凡林, 刘焱雄, 鲍李峰, 石波, 罗宇

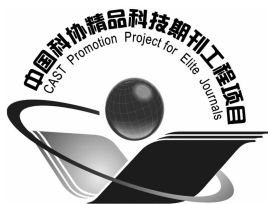
- 3818 格陵兰冰盖次表面湖多源遥感监测——以格陵兰中西部流域为例 李岚静, 陈卓奇, 郑雷, 程晓

地球动力学·地震学·地热学

- 3829 中国陆区活动地块边界带主要断层 10 年尺度强震发生概率 王芃, 邵志刚, 刘晓霞, 尹晓菲
- 3844 基于断层倾角分段变化的玛多地震发震断层构造应力场演化数值模拟分析 吴立新, 卢菁琛, 毛文飞, 胡俊, 周子龙, 李志伟, 齐源, 姚汝冰
- 3858 利用重力异常分析 2021 年青海玛多 $M_s 7.4$ 地震发震断层与结构特征 石磊, 陈涛, 李永华
- 3871 华南中部地幔转换带厚度异常: 海南地幔柱? 王冠之, 陈永顺, 张晨, 盖增喜, 郭震, 杨挺, 葛天雨
- 3881 双聚束噪声成像揭示钦杭与武夷山成矿带上地壳精细结构 侯爵, 徐涛, 吕庆田, 郑孟杰, 白志明
- 3900 基于传播矩阵法改进的 SS 及其前驱波合成算法 王培锋, 周勇, 徐敏
- 3912 2013 年内蒙古通辽 $M_s 5.3$ 地震震源区地壳速度结构与孕震环境 宋晓燕, 雷建设
- 3930 四川大岗山水库蓄水对地震活动影响的数值模拟研究 朱家正, 孙玉军
- 3944 东南沿海黄沙洞地热田地应力与控热构造研究 范艳霞, 李海龙, 张军龙, 王强茂, 任天翔, 张敏, 黄少鹏, 秦向辉
- 3962 日本海盆地弧后扩张期间构造-热演化数值模拟

应用地球物理学

- 3975 第二深度空间矿产资源探查理念与电磁法找矿实践 …… 滕吉文, 薛国强, 宋明春
- 3986 融合复杂地质信息的地球物理模型建模技术 …… 任政勇, 王祥, 汤井田, 吴启红
- 3997 地面与半航空瞬变电磁法三维联合反演 …… 刘明宏, 蔡红柱, 杨浩, 熊咏春, 胡祥云
- 4012 含流体复杂孔隙介质地震波衰减与频散 …… 宗兆云, 宋琉璇, 印兴耀
- 4028 VTI 介质初至波多参数走时反演敏感核分析及反演策略 …… 张建明, 董良国, 王建华, 汪燚林
- 4047 近似常 Q 模型的黏声各向异性纯 qP 波逆时偏移 …… 张闪闪, 谷丙洛, 丁奕文, 王霁川, 李振春
- 4063 全方位道集速度建模方法及应用 …… 张丽艳, 李昂, 杨建国, 李士超, 姚玉来, 黄一鸣, 肖飞
- 4073 基于半监督学习的井震联合储层横向孔隙度预测方法 …… 韩宏伟, 刘浩杰, 桑文镜, 魏国华, 韩智颖, 袁三一
- 4087 光缆布设方式对 DAS 主、被动源记录的影响 …… 林融冰, 包丰, 谢军, 张宫博, 宋政宏, 曾祥方
- 4099 拖缆与 OBN 资料联合成像域最小二乘逆时偏移成像 …… 杨华臣, 张建中
- 4111 重力及其垂直梯度交叉约束联合密度结构反演方法 …… 马国庆, 李欣蔚, 王泰涵, 熊盛青, 高桐
- 4122 偶极横波远探测在裸眼井及套管井中接收波场的方位响应特征 …… 李杨虎, 唐晓明, 苏远大



Contents

Space physics • Geodesy

- 3691 Transverse confinement and periodic oscillations of electron beam structures traveling in the Earth's magnetic field
... JIAO LuHuai, GE YaSong, ZHANG YuanNong,
GUO YingJie, FENG MingHang, FU Song
- 3704 Modeling research on the relationship between ionospheric scintillation index and drift speed in polar ionosphere
... LU Sheng, XING ZanYang, DENG ZhongXin,
ZHANG QingHe, WANG Yong, WANG Cheng,
FENG Jian, MA YuZhang, XIA Kai
- 3714 Study on average characteristics of upper boundary of sodium layer in Yanqing, Beijing
... XU YiMeng, LIN ZhaoXiang, YANG GuoTao,
WANG JiHong, CHENG XueWu, LI FaQuan,
YANG Yong, DU LiFang, JIAO Jing, XUN YuChang,
ZHENG HaoRan, WU FuJu, DONG Yi
- 3728 Analysis of the geomagnetic component Z daily variation amplitude based on the Geomagnetic Network of China during solar quiet days
... ZHAO XuDong, HE YuFei, LI Qi, LIU XiaoCan
- 3743 Space-based Time of Flight(TOF) mass spectrometer for suprathermal-through-energetic ion measurements—development status and prospects ... ZHANG WeiJie,
ZHANG ShenYi, ZHANG XianGuo, YE YiZhong
- 3759 Carbon dioxide column-retrieval errors arising from neglecting the 3D scattering effect caused by sub-pixel low-level water clouds in the short-wave infrared band
... BAI WenGuang, ZHANG Peng, LU NaiMeng,
ZHANG WenJian, MA Gang, QI ChengLi, LIU Hui
- 3770 The construction of an approximated analytical solution to Earth's deformation and its application

- ... ZHOU JiangCun, PAN ErNian, SUN HePing,
XU JianQiao, CHEN XiaoDong, CUI XiaoMing
- 3780 Investigation of spatiotemporal characteristics of terrestrial water storage changes in the Yangtze River Basin using GNSS vertical displacement data ... TANG Miao,
ZHONG Ping, JIANG ZhongShan, LIU WanChun,
CHENG Shuai, YANG XingHai
- 3797 GNSS-A straight-line survey pattern and trajectory combination optimization analysis
... MA YueYuan, YANG YuanXi, ZENG AnMin
- 3809 A sound ray tracing positioning method for marine geodetic datum considering the effect of transceiver separation ... XIN MingZhen, GE MaoRong,
YANG FanLin, LIU YanXiong, BAO LiFeng,
SHI Bo, LUO Yu
- 3818 Extraction of Greenland Ice Sheet buried lakes using multi-source remote sensing data; With application to the Central West basin of Greenland ... LI LanJing,
CHEN ZhuoQi, ZHENG Lei, CHENG Xiao

Geodynamics • Seismology • Geothermics

- 3829 Ten-year probability of strong earthquakes on major faults in boundaries of active blocks in Chinese continent
... WANG Peng, SHAO ZhiGang, LIU XiaoXia,
YIN XiaoFei
- 3844 Sectional fault-inclination-change based numerical simulation of tectonic stress evolution on the seismogenic fault of Madoi earthquake ... WU LiXin, LU JingChen, MAO WenFei,
HU Jun, ZHOU ZiLong, LI ZhiWei,
QI Yuan, YAO RuBing
- 3858 Analysis of seismogenic fault and structural characteristics of the 2021 Madoi, Qinghai $M_s 7.4$ earthquake using gravity anomalies ... SHI Lei, CHEN Tao, LI YongHua

3871 **Mantle transition zone thickness anomaly at middle Southern China by receiver function: evidence for Hainan Plume** WANG GuanZhi, CHEN YongShun, ZHANG Chen, GE ZengXi, GUO Zhen, YANG Ting, GE TianYu

3881 **The fine upper crustal structure below the Qin-Hang and Wuyishan metallogenic belts revealed by double beamforming ambient noise tomography** HOU Jue, XU Tao, LÜ QingTian, ZHENG MengJie, BAI ZhiMing

3900 **An improved algorithm for simulating waveforms of SS and its precursors based on propagation matrix method** WANG PeiFeng, ZHOU Yong, XU Min

3912 **Crustal velocity structure and seismogenic environments in the source areas of the 2013 Tongliao, Inner Mongolia, M_s 5.3 earthquake** SONG XiaoYan, LEI JianShe

3930 **Numerical simulation of the effect of water storage on seismic activity in Dagangshan Reservoir, Sichuan, China** ZHU JiaZheng, SUN YuJun

3944 **Research on the in-situ stress state and the geothermal-controlling structure of the Huangshadong Geothermal Field in the Southeast Coast of China** FAN YanXia, LI HaiLong, ZHANG JunLong, WANG QiangMao, REN TianXiang, ZHANG Min, HUANG ShaoPeng, QIN XiangHui

3962 **Tectono-thermal modeling of the sea of Japan during back-arc spreading** YAN LiWen, HE LiJuan, WU JinHui, CHEN ChaoQiang



Applied Geophysics

3975 **Theory on exploring mineral resources in the second deep space and practices with electromagnetic method** TENG JiWen, XUE GuoQiang, SONG MingChun

3986 **A technique for constructing geophysical model from complex geological information** ... REN ZhengYong, WANG Xiang, TANG JingTian, WU QiHong

3997 **Three-dimensional joint inversion of ground and semi-**

airborne transient electromagnetic method LIU MingHong, CAI HongZhu, YANG Hao, XIONG YongChun, HU XiangYun

4012 **Seismic wave velocity attenuation and dispersion in the patchy saturated medium with complex pores and cracks** ZONG ZhaoYun, SONG LiuXuan, YIN XingYao

4028 **Sensitivity kernel analysis and inversion strategy for multi-parameter travelttime inversion in VTI media** ZHANG JianMing, DONG LiangGuo, WANG JianHua, WANG YiLin

4047 **Reverse time migration of viscoacoustic anisotropic pure qP-wave based on nearly constant Q model** ZHANG ShanShan, GU BingLuo, DING YiWen, WANG JiChuan, LI ZhenChun

4063 **Full-azimuth gather velocity modeling method and application** ZHANG LiYan, LI Ang, YANG JiangGuo, LI ShiChao, YAO YuLai, HUANG YiMing, XIAO Fei

4073 **Seismic and well logs integration for reservoir lateral porosity prediction based on semi-supervised learning** ... HAN HongWei, LIU HaoJie, SANG WenJing, WEI GuoHua, HAN ZhiYing, YUAN SanYi

4087 **The influence of cable installment on DAS active and passive source records** ... LIN RongBing, BAO Feng, XIE Jun, ZHANG GongBo, SONG ZhengHong, ZENG XiangFang

4099 **Image-domain least-squares reverse-time migration of combined towed-streamer and OBN data** YANG HuaChen, ZHANG JianZhong

4111 **Cross-constrained joint inversion of gravity and vertical gradient data for density structure** MA GuoQing, LI XinWei, WANG TaiHan, XIONG ShengQing, GAO Tong

4122 **Azimuthal response of the received wavefield in open and cased boreholes for dipole shear-wave reflection imaging** LI YangHu, TANG XiaoMing, SU YuanDa