



SN 1002-8935

Q K 2 2 1 8 8 1 4 N 11-2485/TN

1959年创刊

真空电子技术

VACUUM ELECTRONICS
ZHENKONG DIANZI

2022 **2**



ISSN 1002-8935



9 771002 893006

04 >

万方数据

北京真空电子技术研究所主办
<http://zkdj.cbpt.cnki.net>



目次

综述

- 3D 打印技术在飞行装备及微波器件中的应用 杨金生,徐树森 (1)
绕射辐射器件 Orotron 的发展 孙海舟 (7)

紫外光及应用专辑

- 专辑序 冯进军,康永锋 (14)
日盲区紫外光通信真空光源研究进展 刘 茹,胡金涛,向乾元,等 (15)
真空紫外光电倍增管现状及发展趋势分析 王浩东 (23)
一种基于紫外成像特性的目标质心提取算法 丁赫,杨 硕,邓 凯 (29)
日盲紫外真空探测器件和组件技术研究 唐家业,方盛江,颜士飞,等 (37)
基于高次谐波真空紫外光源的产生和应用 宋 盼,王小伟,袁建民,等 (45)
日盲紫外成像技术与应用的若干分析 许 强,刘晓东,刘志成 (56)

理论与设计

- 基于循环神经网络的行波管大信号输出特性预测 李卓芸,殷海荣,李年康,等 (63)
同轴磁控管消除竞争模式的研究 鲍 敏,何其伟,李海龙,等 (67)
基于渐变折射率超材料的微波单模腔水负载 舒蔚君,朱盛颖,朱铨丞,等 (72)
变频调相功分馈电网络在微波指向加热中的应用 王壮飞,徐东媛,黄 洁,等 (77)

微波能应用

- 一种基于矩形压缩波导的 5.8 GHz 微波等离子体激发装置 张瑶圃,吴 丽,黄卡玛 (82)
一种三端口椭圆能量聚焦型大功率微波等离子体炬 谢政廷,朱盛颖,朱铨丞,等 (86)
基于带状线的新型八通道微波等离子体射流装置 付 刚,黄卡玛,钟南亚 (92)
基于圆脊波导的双端口微波等离子体射流装置 朱盛颖,马长强,谢政廷,等 (97)
微波合成分子筛系统的研制及试验 王 顺,王 辉,赵小莹,等 (102)

VACUUM ELECTRONICS

No. 2 (Sum 357) 2022

Contents

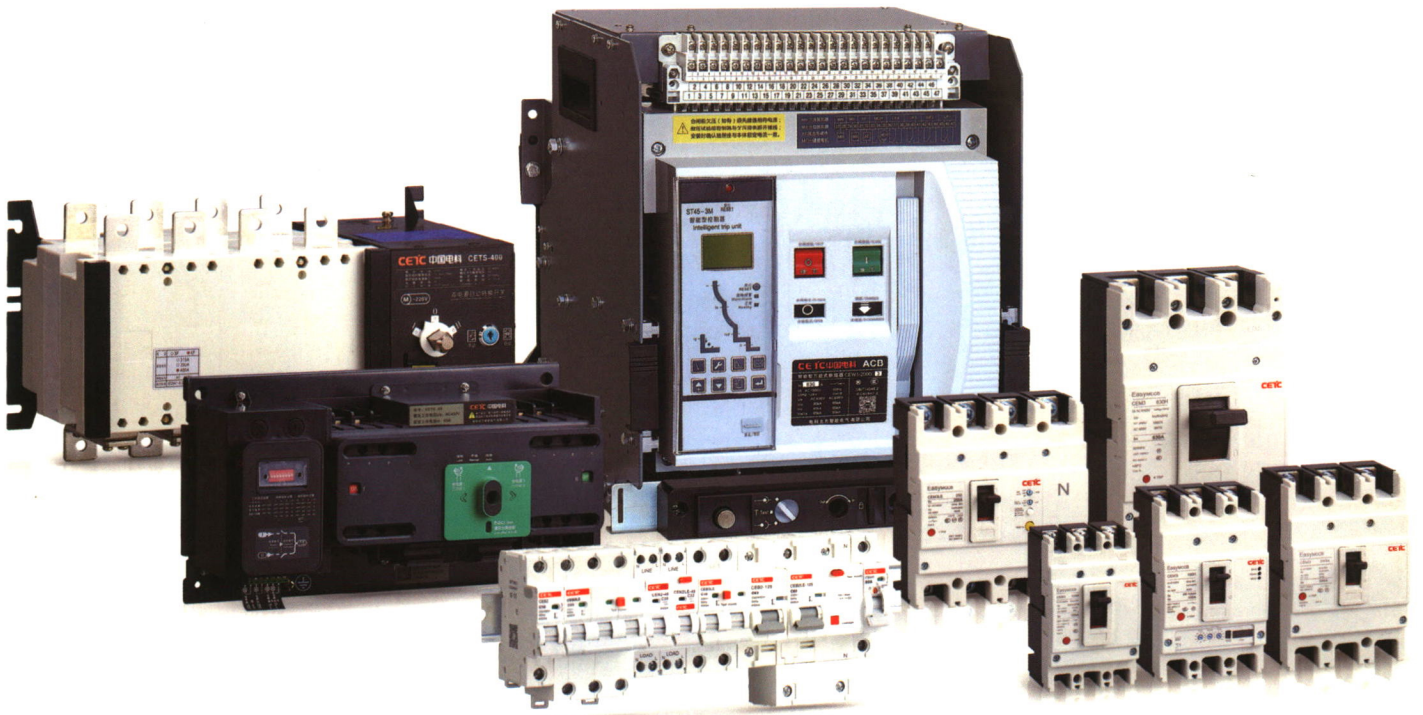
- Application of 3D Printing Technology in Microwave Devices and Equipment
..... YANG Jin-sheng, XU Shu-sen (1)
- Development of Diffraction Radiation Device Orotron SUN Hai-zhou (14)
- Progress of Solar Blind Ultraviolet Light Source for Communication
..... LIU Ru, HU Jin-tao, XIANG Qian-yuan, *et al.* (15)
- Status and Development Trend of UV-Photomultiplier Tubes WANG Hao-dong (23)
- A Target Centroid Extraction Algorithm Based on UV Imaging Characteristics
..... DING He, YANG Shuo, DENG Kai (29)
- Technique Research on Solar-Blind Ultraviolet Vacuum Detector and Assembly
..... TANG Jia-ye, FANG Sheng-jiang, YAN Shi-fei, *et al.* (37)
- Generation and Application of Vacuum Ultraviolet Light Sources Based on High Harmonic
..... SONG Pan, WANG Xiao-wei, YUAN Jian-min, *et al.* (45)
- Several Analysis of Solar-Blind Ultraviolet Imaging Technology and Application
..... XU Qiang, LIU Xiao-dong, LIU Zhi-cheng (56)
- Non-linear Output Characteristic Prediction of TWTs Based on Recurrent Neural Network Model
..... LI Zhuo-yun, YIN Hai-rong, LI Nian-kang, *et al.* (63)
- Research on Mode Competition Elimination of Coaxial Magnetrons
..... BAO Min, HE Qi-wei, LI Hai-long, *et al.* (67)
- Microwave Water Load in Single-Mode Cavity Based on Graded Index Metamaterials
..... SHU Wei-jun, ZHU Seng-ying, ZHU Hua-cheng, *et al.* (72)
- Application of Variable Frequency Phase Modulation Power Division Feed Network in
Microwave Directional Heating WANG Zhuang-fei, XU Dong-yuan, HUANG Jie, *et al.* (77)
- 5.8 GHz Microwave Plasma Source Based on Compression Rectangular Waveguides
..... ZHANG Yao-pu, WU Li, HUANG Ka-ma (82)
- A High-Power Microwave Plasma Torch with Three-Port Elliptical Energy Focusing
..... XIE Zheng-ting, ZHU Sheng-ying, ZHU Hua-cheng, *et al.* (86)
- A New Eight-Channel Microwave Plasma Jet Device Based on Strip Line
..... FU Gang, HUANG Ka-ma, ZHONG Nan-ya (92)
- Design of Dual-Port Microwave Plasma Jet Based on Circular Ridge Waveguide
..... ZHU Sheng-ying, MA Chang-qiang, XIE Zheng-ting, *et al.* (97)
- Development and Experiment of Molecular Sieve Microwave Synthesis System
..... WANG Shun, WANG Hui, CHANG Rui-feng, *et al.* (102)

我们的企业愿景是

“成为电子信息领域具有全球影响力的科技型企业”

Our business vision is

“Become a scientific and technological enterprise with global influence in the field of electronic information”



高端低压电气系统解决方案专家

HIGH-END LOW VOLTAGE ELECTRICAL SYSTEM SOLUTION EXPERT

服务智慧城市建设，让生活更美好
智慧电力 科技互动

To serve the construction of smart cities,
Make Life Better

电科北方智能电气有限公司

北京总部地址: 北京市朝阳区酒仙桥路13号
电话: 010-84560996 传真: 010-84352378

北京密云生产基地: 北京市密云经济开发区科技路36号
电话: 010-69755199 传真: 010-69075519

浙江德清生产基地:

浙江省德清县阜溪街道紫山街88号(莫干山国家高新区)
电话: 0572-8831522 传真: 0572-8831511

全国统一客户服务热线

400-686-1522

欢迎访问: <http://www.cetc-electric.com>

