



QK2011874

CN11-5004/SC



# 影像科学与光化学

IMAGING SCIENCE AND PHOTOCHEMISTRY

主办：中国科学院理化技术研究所

中国感光学会

出版：科学出版社

2020

Vol.38 No.1

# 影像科学与光化学

(Yingxiang Kexue yu Guanghuaxue)

第 38 卷 第 1 期

2020 年 1 月

## 目 次

### 综述与论文

- ε-己内酯改性聚氨酯丙烯酸酯的制备及电子束固化涂料性能研究 ..... 于 浩, 刘朋飞, 刘 仁, 张丽萍(1)  
霉菌对黑白照相底片背涂层影响研究 ..... 祁赟鹏, 汪 泳, 何 雨, 张晓林, 田 奕, 周亚军, 贾智慧, 李玉虎(9)  
光子晶体非线性效应全光开关研究 ..... 郭 延, 朱建峰, 张 含, 冯云鹏, 程灏波(15)  
甲基丙烯酰胺基明胶水凝胶研究进展 ..... 王毅虎, 曹霄峰, 张 兵, 王佳宁, 张炜杰, 郭燕川(22)  
还原态脒类 LED 光产碱剂的合成及性能研究 ..... 郑元俭, 杨一男, 陆华侨, 刘 仁, 李治全(27)  
4-乙烯基-1-环己烯二环氧化物阳离子单体光聚合性能研究 ..... 周金娣, 陆炳宇(37)  
无损检测技术及应用 ..... 马 超(46)  
十二导联动态心电图对冠心病心肌缺血发作患者的诊断价值研究 ..... 黎维桃(52)  
超声造影参数对宫颈癌新辅助化疗疗效的评估价值 ..... 纪亚梅, 沈 翠(59)  
药物流产后宫内残留物的腹部超声检测及其对清宫术时机的指导作用 ..... 刘 佳, 徐珍望(67)  
上颌第二磨牙牙冠颊舌径、近远中径和牙牙合面形态的 CBCT 研究 ..... 罗 成, 杨馥榕, 雷延颖(73)  
超声脐动脉 S/D 联合血清 IGF-1 和胆汁酸对新生儿窒息的临床诊断价值分析 .....  
董亚男, 庞 远, 李海朋, 舒 展, 肖秀娟(80)  
全视网膜激光光凝术联合玻璃体腔内注射康柏西普对增生性糖尿病视网膜病变患者视功能恢复  
的影响 ..... 陈 辑(87)  
冠状动脉 CTA 定量评估稳定型心绞痛患者斑块进展及其在心血管事件中的预测价值 .....  
梁 洁, 李葆青, 王月卿(94)  
经阴道超声和经腹部超声测量瘢痕妊娠的瘢痕厚度与实际厚度的相关性分析 .....  
石辛景, 康志平, 刘亚静, 邢龙颜, 杨冬雪, 陈莉茹(101)  
CTA 在急性复杂性大咯血患者行介入栓塞术前的应用价值分析 .....  
陈庭宇, 龚齐云, 邓旭东, 王 恒, 任 杨, 袁 元(109)  
LI-RADS 实际运用现状分析 ..... 李敬伟, 王志鹏, 张 鹏, 高凤国, 张 鹏, 于连泽(116)  
卒中后癫痫的静息态脑功能磁共振成像研究 ..... 苗燕平, 赵 盛(125)  
超声造影和 MRI 在胃癌新辅助治疗后再分期的一致性 ..... 刘 畔, 马生君, 韩 琳(132)  
外伤性膝关节隐性骨折的核磁共振成像表现及其诊断价值分析 ..... 孙秋原, 李 襄, 牛亚峰(138)  
超微血管成像和超声造影对乳腺癌病灶内微血流及超微血管的评价及其联合诊断价值 .....  
丁敏侠, 严 婷(144)  
彩色多普勒超声结合磁共振成像对胎盘植入的诊断价值分析 ..... 王 娟, 刘 蓉, 艾 婷(150)

期刊基本参数:CN 11-5604/O6 \* 1983 \* b \* A4 \* 96 \* zh+en \* P \* ¥30.00 \* 2000 \* 22 \* 2020-1

# IMAGING SCIENCE AND PHOTOCHEMISTRY

Vol. 38 No. 1

Jan. , 2020

## CONTENTS

### Review and Articles

- Preparation of ε-Caprolactone Modified Polyurethane Acrylate and Properties of Electron Beam Curing Coatings ..... YU Hao, LIU Pengfei, LIU Ren, ZHANG Liping(1)
- Effects of Mold on The Back Coating of Photographic Negatives ..... QI Yunpeng, WANG Yong, HE Yu, ZHANG Xiaolin, TIAN Yi, ZHOU Yajun, JIA Zhiwei, LI Yuhu(9)
- Research on All-optical Switch Based on Nonlinear Effect of Photonic Crystal ..... GUO Yan, ZHU Jianfeng, ZHANG Han, FENG Yunpeng, CHENG Haobo(15)
- The Research Progress of Methacrylamide Gelatin Hydrogel ..... WANG Yihu, CAO Xiaofeng, ZHANG Bing, WANG Jianing, ZHANG Weijie, GUO Yanchuan(22)
- Study on Synthesis and Properties of an Amidine-based Photobase Generator Sensitive to LED Light ..... ZHENG Yuanjian, YANG Yinan, LU Huaqiao, LIU Ren, LI Zhiquan(27)
- Photopolymerization Properties of 1,2-Epoxy-4-epoxyethylcyclohexane Cationic Monomers ..... ZHOU Jindi, LU Bingyu(37)
- Non-destructive Testing Technology and Application ..... MA Chao(46)
- Study on the Diagnostic Value of 12 Lead Dynamic Electrocardiogram for Myocardial Ischemic Attack in Patients with Coronary Heart Disease ..... LI Weitao(52)
- The Value of Contrast-enhanced Ultrasound Parameters in Evaluating the Efficacy of Neoadjuvant Chemotherapy for Cervical Cancer ..... JI Yamei, SHEN Cui(60)
- Abdominal Ultrasound Testing and Its Guidance on the Timing of Uterine Curettage for Patients with Intrauterine Residue after Medical Abortion ..... LIU Jia, XU Zhenwang(68)
- CBCT Study of Buccal-lingual Diameter, Proximal-distal Mid-diameter and Occlusal Surface Morphology of Maxillary Second Molar Crown ..... LUO Cheng, YANG Furong, LEI Yanying(74)
- Clinical Diagnostic Value of Ultrasound Umbilical Artery S/D Combined with Serum IGF-1 and Bile Acid in Neonatal Asphyxia ..... DONG Ya'nan, PANG Yuan, LI Haipeng, SHU Zhan, XIAO Xiujuan(80)
- Effect of Panretinal Laser Photocoagulation Combined with Intravitreal Injection of Compoxip on Visual Function Recovery in Patients with Proliferative Diabetic Retinopathy ..... CHEN Ji(88)
- Assessment of Plaque Progression in Patients with Stable Angina Pectoris by Coronary CTA Placement and Its Predictive Value in Cardiovascular Events ..... LIANG Jie, LI Baoqing, WANG Yueqing(95)
- Correlation Between the Thickness of Scar and the Actual Thickness of Scar Pregnancy Measured by Transvaginal Ultrasound and Transabdominal Ultrasound ..... SHI Xinjing, KANG Zhiping, LIU Yajing, XING Longyan, YANG Dongxue, CHEN Liru(101)
- Application Value of CTA in Patients with Acute Complicated Massive Hemoptysis before Interventional Embolization ..... CHEN Tingyu, GONG Qiyun, DENG Xudong, WANG Heng, REN Yang, YUAN Yuan(109)
- Analysis of the Actual Application of LI-RADS ..... LI Jingwei, WANG Zhipeng, ZHANG Peng, GAO Fengguo, ZHANG Peng, YU Lianze(116)
- Resting Brain Functional Magnetic Resonance Imaging of Post-stroke Epilepsy ..... MIAO Yanping, ZHAO Sheng(125)
- Consistency of CEUS and MRI on Post-treatment Staging of Neoadjuvant Therapy for Gastric Cancer ..... LIU Ye, MA Shengjun, HAN Lin(132)
- MRI Findings and Diagnostic Value of Traumatic Knee Joint Recessive Fracture ..... SUN Qiuyuan, LI Ji, NIU Yafeng(138)
- The Diagnostic Value of Superb Microvascular Imaging and Contrast Enhanced Ultrasound in Microblood Flow and Ultramicro-blood Vessels in Breast Cancer ..... DING Minxia, YAN Ting(145)
- Diagnostic Value of Color Doppler Ultrasound Combined with Magnetic Resonance Imaging for Placenta Implantation ..... WANG Juan, LIU Rong, AI Ting(150)

# 影像科学与光化学

## IMAGING SCIENCE AND PHOTOCHEMISTRY

本刊刊登以下研究领域的创新成果：影像材料与技术、生物与医学成像、数字成像与器件、印刷技术、柔性电子、图像信息处理、遥感图像、信息材料、光学材料与器件、光谱学、辐射固化、光化学、光电化学、光生物、光医学等。

*The Imaging Science and Photochemistry* publishes the results and peer-reviewed articles in following scientific areas which include, but not limit to, imaging materials and devices, biological and medical imaging, digital imaging, printing technology, radiation curing, flexible electronics, remote sensing and informational materials, optical materials and devices, spectroscopy, photochemistry, photo-electrochemistry, photobiology, and photomedicine.

### 影像科学与光化学

(双月刊,1983年创刊)

第38卷 第1期 2020年1月

### IMAGING SCIENCE AND PHOTOCHEMISTRY

(Bimonthly, Started in 1983)

Vol. 38 No. 1 Jan., 2020

主 管 中国科学院  
主 办 中国科学院理化技术研究所  
中国感光学会  
主 编 王雪松  
编 辑 《影像科学与光化学》编辑部  
通讯地址：北京市海淀区中关村东路 29 号  
中国科学院理化技术研究所  
邮政编码：100190  
电 话：010-82543683  
电子信箱：xb@mail. ipc. ac. cn  
网 址 <http://www.yxkxyghx.org>  
出 版 科 学 出 版 社  
地址：北京东黄城根北街 16 号  
邮政编码：100717  
印刷装订 北京科信印刷有限公司  
总 发 行 科 学 出 版 社  
国外总发行 中国国际图书贸易总公司  
(北京 399 信箱)  
邮政编码：100044  
⑤ 版权所有 中国标准连  
续出版物号 ISSN 1674-0475  
CN 11-5604/O6

**Superintended by** Chinese Academy of Sciences  
**Sponsored by** Technical Institute of Physics and Chemistry,  
CAS; Chinese Society for Imaging Science and Technology  
**Editor in Chief:** WANG Xuesong  
**Edited by** the Editorial Board of Imaging Science and Photo-  
chemistry  
Address: No. 29 Zhongguancun East Road, Haidian  
District, Beijing 100190, P. R. China  
E-mail: xb@mail. ipc. ac. cn  
**Published by** Science Press  
16 Donghuangchenggen North Street, Beijing 100717,  
P. R. China  
**Printed by** Beijing Kexin Printing Limited Company  
**Domestically distributed by** Science Press  
**Internationally distributed by** China International Book Trading  
Corporation(P. O. Box 399, Beijing 100044, P. R. China)  
ISSN 1674-0475  
CN 11-5604  
CODEN: YKYGAW



国外发行代号：BM1146

国内邮发代号：2-383

公开发行，国内定价：30.00 元

广告发布登记：京海市监广登字 20190002 号

ISSN 1674-0475



01>  
9 771674 047202