

夜视技术

紫外指纹识别照相系统视场中心亮斑的产生原因及分析

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摘要 针对紫外指纹识别照相系统是目前从事公安刑侦工作者进行指纹识别和提取犯罪鉴定的一种重要手段, 而其视场中心亮斑严重影响着指纹图片的质量, 分析了该系统视场中心亮斑产生的原因, 指出其中心亮斑主要是由系统轴外杂散光引起, 通过对这些原因进行分析, 有针对性地提出了采用消光性能良好视场的物镜系统或者合适的视场光阑尺寸及位置; 或者给阴极输入面有效直径之外区域涂敷紫外吸收膜的方法, 消除了视场中心亮斑, 用以满足公安刑侦指纹识别、存储及其他领域对指纹、脚印等的识别与提取。

关键词 [指纹识别和提取](#) [中心亮斑](#) [照相系统](#) [紫外技术](#)

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The method for eliminating bright spot in the field of view center in UV fingerprint identification camera system

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Abstract UV fingerprint identification camera system is a very useful tool in the field of criminal investigation. But its image quality is often influenced by the bright spot in the FOV center of the system. In this paper, the operation principle of fingerprint identification and camera system is described. The generation of the bright spot is analyzed and some methods are given to eliminate it. It is pointed out that the phenomenon is mainly caused by off-axis stray light from the system. The methods to eliminate the bright spot include, adopting an object lens with higher extinction performance, using a view-field diaphragm with proper diameter and position, or evaporating a UV absorbing film on the input window surface outside the active area. The experimental result shows that the methods meet the fingerprint identification and storage requirements in criminal investigation.

Key words [fingerprint distinguish and pick-up](#) [bright spot of view-field center](#) [camera system](#) [UV technology](#)

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