

重叠核径迹图像的分割与参数统计算法研究

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摘要 本工作研究重叠核径迹图像分割和参数统计算法。提出了综合运用Otsu全局阈值法和距离变换, 并对距离图像进行了二值化处理, 有效地将重叠核径迹分割开。在此基础上完成了核径迹的面积、周长、圆形度和质心等参数的统计。计算机模拟结果表明, 整个算法简练, 运行效率高, 且不需人工干预。

关键词 [重叠核径迹](#) [图像分割](#) [参数统计](#) [距离变换](#) [阈值](#)

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Algorithm Study of Image Segmentation and Parameters Calculation for Overlapping Nuclear Track

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Abstract The algorithm of image segmentation and parameters calculation for overlapping nuclear track image is studied. The method of the Otsu global threshold and distance transformation was proposed, the distant image was converted to a binary image, and the overlapping nuclear track was effectively segmented. The parameters calculation of the nuclear track, such as area, perimeter, roundness, centroid, was completed based on these methods. Computer simulation results show that the algorithm is concise, efficient and processed automatically.

Key words [overlapping nuclear track](#) [image segmentation](#) [parameters statistic](#) [distance transformation](#) [threshold](#)

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