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The Tumour Histologic Sections Processing With Diagnostic Purposes

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The new tumour therapy methods request exact differential diagnostics in order to establish the blastoma's biological potential and prognostics. One of the diagnostics methods is histologic section analysis. We propose to implement for histologic section analysis mathematical morphology and integral geometry methods [1, 2]. Within the framework of these methods [1, 3] some functionals are estimated for images. The most important of them is the Euler characteristic. It was found that for normal tissue and tumour, there are significant differences in its shape. These shapes may be easily classified by a wide range of intellectual systems.

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- [3] J. Serra, *Image analysis and mathematical morphology*, Academ.Press, Orlando, FL, USA, 1983.