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Autore	Tishko Tatyana
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holographic interference microscope; 3.7 Digital holographic microscopy; Chapter 4 Application of the Digital Holographic Interference Microscope for Blood Cells Study
4.1 DHIM study of 3D morphology of blood erythrocytes
4.2 Ozone therapy influence on 3D morphology of blood erythrocytes; 4.3 Blood erythrocytes in hematological diseases; 4.4 Blood erythrocytes of pregnant women and newborns; 4.5 Gamma-radiation influence on blood erythrocytes; 4.6 Conclusions; Chapter 5 DHIM Study of Thin Transparent Films; Conclusions; References; Bibliography; Index

Sommario/riassunto

The book presents a clear and comprehensive review of the current status of the holographic microscopy with discussion of the positive and negative features of classical and holographic methods for solving the problem of three-dimensional (3D) imaging of phase microscopic objects. Classical and holographic methods of phase, interference and polarization contrast are discussed. Combination of the developed holographic methods with the methods of digital image processing allowed creating the digital holographic interference microscope (DHIM). The first 3D images of native phase microscopic object
