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6.4 Differential Diagnosis of Aseptic and Septic Loosening of the Cup of an Artificial Hip Joint Endoprosthesis by the Method of Correlation Analysis of Spectral-Selective MIF of Polycrystalline Films of Synovial Fluid -- 6.5 Informational Analysis of Data from the Method of Correlation Analysis of Spectral-Selective Maps of Fluorescence Intensity of Polycrystalline Films of SF -- 6.6 Conclusions -- References -- Main Results and Conclusions.

Sommario/riassunto

This book highlights the effectiveness of differential diagnosis in the degree of severity of joint pathology from a clinical, biophysical, and informational point of view. It includes the following information blocks:

- Two-dimensional digital polarization microscopy of polycrystalline films of synovial fluid and determination of the

coordinate distributions of the orientation and phase parameters of the microscopic image from a set of parameters of the Stokes vector. • Mueller-matrix mapping of polycrystalline films of synovial fluid and determination of a set of coordinate distributions (Mueller-matrix images (MMI)) of azimuthal-invariant elements that characterize manifestations of optical activity and linear birefringence. • Development of algorithms for polarization reproduction of distributions of linear and circular birefringence of polycrystalline films of synovial fluid. • Identification of digital statistical, correlation and wavelet criteria of polarization and Mueller-matrix differential diagnosis of the degree of severity of joint pathology. • Determination of maps of laser-induced fluorescence of synovial fluid polycrystalline films. • Identification of statistical and correlational criteria for fluorescent differential diagnosis of the degree of severity of joint pathology. • Operational characteristics of the power of the methods of azimuth-invariant polarization, Mueller-matrix and laser autofluorescence microscopy of polycrystalline films of synovial fluid.

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Sommario/riassunto

This book presents a collection of essays on key topics and new perspectives on the EU's Area of Freedom, Security and Justice (AFSJ) and has a Foreword by the President of the Court of Justice of the European Union, Prof. Dr. Koen Lenaerts. Europe's area of freedom, security and justice is of increasing importance in contemporary EU law and legislation. It is worthy of special research attention because of its high-stakes content (particularly from an individual and a state perspective) and because its development to date has tangentially thrown up some of the most important and contentious constitutional questions in EU law. As the AFSJ becomes more and more intertwined with 'mainstream' EU law, this edited collection provides a timely analysis of the merger between the two. Showcasing a selection of work from key thinkers in this field, the book is organised around the major AFSJ themes of crime, security, border control, civil law cooperation and important 'meta' issues of governance and constitutional law. It also analyses the major constitutional and governance challenges such as variable geometry, institutional dynamics, and interface with rights around data protection/secrecy/spying. In the concluding section of the book the editors consider the extent to which the different facets of the AFSJ can be construed in a coherent and systematic manner within the EU legal system, as well as identifying potential future research agendas. The European Union as an Area of Freedom, Security and Justice will be of great interest to students and scholars of European law and politics.