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JOB-RELATED SKILLS

R&D of laser interferometry techniques and their application for measuring of displacements, stress and strain, velocities, vibrations, slopes and curvatures of optically rough surfaces: portable Electronic Speckle Pattern Interferometer with optical fibers for full field investigation of defects and vibrations of carbon glass composite panels samples, defected wood and icons, human dents; analog and digital holography; Digital Holographic Microscope for measuring of different optical components and biological objects.

Laser technologies application for industrial measurements: float glass stress, wood panels and cultural heritage analysis, secure holograms application and identification.

UV, VIS and IR spectral analysis of optical properties of polymers, photo chrome materials, and chalcogenide glasses.

Designed procedures for optic holographic recording process investigations, holographic matrix producing, printing of holographic marks and protection marks, processes of producing printed materials with holographic marks for protection from falsifications of products.

Gained expertise of overall holographic process from scientific researches of recording media, recording process control, metal master matrix producing until printing holographic marks of protection, management, and marketing.

Optical, electrical and photoelectrical properties investigations of chalcogenide glass structures and nanomultilayers on their bases for different applications such as diffractive optical elements, recording media.

Assessment optical and mechanical properties of polymer composition for application in process of recording and copying holographic and optical images.

Designed multimedia informative holographic technologies in application for acquisition, recording and reading information from optic super great capacity data banks.

R&D of vibration sensors (stethoscopes) for medical diagnostics of human breast illness with data analyses in frequency domain and determination of critical situations.

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| Number of papers in refereed journals:                        | 71  |
| Total number of communications on scientific journals:        | 112 |
| Number of Copyright Certificates (USSR and Moldova Republic): | 5   |
| Participated with the scientific reports on conferences:      | 55  |