Materials:

Metallic Alloys, Tool Materials, Superplastic Materials, Ceramics and Glasses, Composites, Amorphous Materials, Nanomaterials, Biomaterials, Multifunctional and Smart Materials, Engineering Polymers

Properties:

Ductility and Crack Resistance, Fatigue, Creep-resistance, Fracture Mechanics, Mechanical, Electrical, and Magnetic Properties, Corrosion and Erosion, Wear Resistance, Non-Destructive Testing, Reliability Assessment, Toxicity, Working Properties of Materials and Products

Methodology of Research:

Electron Microscopy, X-ray Phase Analysis, Metallography and Quantitative Metallography, Image Analysis, Computer Assistance in the Engineering Tasks and Scientific Research

Analysis and Modelling:

Numerical Techniques, Statistic Methods, Residual Life Analysis, Process Systems Design, Mould Flow Analysis, Rapid Prototyping, CAD/CAM, CAMS, CAQ, Engineering Design, Constructional Design, Technological Design, Materials Design, Applied Mechanics, Computational Material Science and Mechanics, Materials and Engineering Databases, Expert Systems, Artificial Intelligence Methods

Manufacturing and Processing:

Casting, Powder Metallurgy, Welding, Sintering, Heat Treatment, Thermo-Chemical Treatment, Thin & Thick Coatings, Surface Treatment, Machining, Plastic Forming, Quality Assessment, Automation Engineering Processes, Robotics and Mechatronics, Technological Devices and Equipment

Cleaner Production:

Theoretical Fundamentals of Cleaner Production, Industrial Application of Cleaner Production Methods

Industrial Management and Organisation:

Production and Operations Management, Production Planning and Control, Manufacturing Technology Management, Guality Management, Environmental Management, Safety and Health Management, Project Management, Physical Distribution and Logistics Management, Supply Chain Management, Productivity and Performance Management

Education and Research Trends:

Development of New Curricula for BSc and MSc Studies in the field of Materials Science, Manufacturing and Mechanical Engineering, Challenges of the Widening Labour Market, Complementary Roles of Developed and Developing Nations in Promoting a Global Industrial and Economical Infrastructure and Requirements on Common International Research and Teaching Development in the field of Materials, Manufacturing and Mechanical Engineering, Computer Aided Teaching, E-learning

Only papers positively pre-reviewed by at least two reviewers are published in the Journal

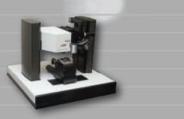


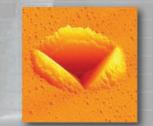
MECHANICAL SURFACE TESTING

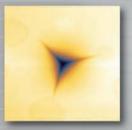
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Indentation Testers

Instrumented Hardness and Elastic Modulus







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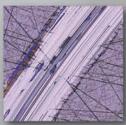
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Scratch Testers Adhesion and Scratch Resistance



//// Pin-on-Disk Tribometers

Friction and Wear







Calotest

Coating thickness measurements







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