

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

Biomedical and Dental Engineering and Materials

Biomaterials Science, Engineering, Technology and Research, Bionanotechnology and Tissue Engineering; Physical, Chemical, Biological, Pharmaceutical and Toxicological Features of Biomaterials and Dental Materials; Metallic, Ceramic, Polymeric, Composites and Hybrid Biomaterials, Nano- and Biomaterials for Tissue Engineering and Regenerative Medicine; Biocompatible Materials, Biologically Inspired and Biomimetic Materials, Bio-Inspired Self-Assembly Systems; Synthesis, Design, Manufacturing and Design of Biomaterials; Implants, Implantable Devices, Artificial Organs, Controlled Drug Delivery Systems and Various Medical Devices, Tissue Scaffolds Regarding Hard and Soft Tissue Engineering; Interactions at the Biointerface between Implant Surfaces and the Biological Environment/Living Tissue, Biocompatibility and Biofunctionality of Biomaterials; Applications of Biomaterials in Medicine and Dentistry for Modern Diagnosis and Therapeutic Clinical Practice, including Therapies of Medical Technology and Regenerative Medicine in All Clinical Disciplines

Cleaner Production and Biotechnology

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

Industrial Management and Organisation

Production and Operations Management, Production Planning and Control, Manufacturing Technology Management, Quality 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



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