

ZWICK TESTXPERT SOFTWARE MANUAL

Xpert MTB/RIF Implementation Manual Sustainable Production in Food and Agriculture Engineering Thomas Register of American Manufacturers and Thomas Register Catalog File Glassy Nuclei in Amorphous Ice International Food Marketing & Technology Quality Today WHO consolidated guidelines on tuberculosis. Module 3 Global Tuberculosis Report 2019 Materials World WHO consolidated guidelines on tuberculosis. Module 3 Antimicrobial Resistance WHO consolidated guidelines on tuberculosis Dietary Bioactives and Bone Health Acoustic Emission Testing Life Cycle Analysis and Assessment in Civil Engineering: Towards an Integrated Vision Global Tuberculosis Report 2015 Computational Methods and Experimental Testing In Mechanical Engineering Materials Design and Applications II Biomedical Technology Information Systems Architecture and Technology: Proceedings of 40th Anniversary International Conference on Information Systems Architecture and Technology – ISAT 2019 Epoxy Composites Statistical Analysis of Fatigue Data Ensuring Innovation in Diagnostics for Bacterial Infection Characterization of Minerals, Metals, and Materials 2015 Research for Universal Health Coverage Current Therapy and Surgery for Urogenital Tuberculosis Systematic Screening for Active Tuberculosis Tuberculosis Prevalence Surveys State of the Art Imaging of Osteoarthritis Field Epidemiology The Veiled Suite SiroFast, Fabric Assurance by Simple Testing Mineral Nutrition of Animals Who Handbook for Guideline Development Practical Testing and Evaluation of Plastics Numerical Modelling of Failure in Advanced Composite Materials Multiscale Materials Modeling Besh Big Easy A Practical Guide to Global Point-of-Care Testing Guidelines for the Programmatic Management of Drug-Resistant Tuberculosis

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Numerical Modelling of Failure in Advanced Composite Materials Oct 28 2019 Numerical Modelling of Failure in Advanced Composite Materials comprehensively examines the most recent analysis techniques for advanced composite materials. Advanced composite materials are becoming increasingly important for lightweight design in aerospace, wind energy, and mechanical and civil engineering. Essential for exploiting their potential is the ability to reliably predict their mechanical behaviour, particularly the onset and propagation of failure. Part One investigates numerical modeling approaches to interlaminar failure in advanced composite materials. Part Two considers numerical modelling approaches to intralaminar failure. Part Three presents new and emerging advanced numerical algorithms for modeling and simulation of failure. Part Four closes by examining the various engineering and scientific applications of numerical modeling for analysis of failure in advanced composite materials, such as prediction of impact damage, failure in textile composites, and fracture behavior in through-thickness reinforced laminates. Examines the most recent analysis models for advanced composite materials in a coherent and comprehensive manner Investigates numerical modelling approaches to interlaminar failure and intralaminar failure in advanced composite materials Reviews advanced numerical algorithms for modeling and simulation of failure Examines various engineering and scientific applications of numerical modelling for analysis of failure in advanced composite materials

Xpert MTB/RIF Implementation Manual Nov 02 2022 In December 2010, WHO first recommended the use of the Xpert MTB/RIF assay. The WHO's policy statement was supported by a rapid implementation document, which provided the technical "how-to" and operational considerations for rolling out the use of the assay. An unprecedented uptake of this new technology followed the release of WHO's policy: by the end of March 2014, more than 2,300 GeneXpert instruments and more than 6 million Xpert MTB/RIF cartridges had been procured in the public sector in 104 countries eligible for concessional prices. An Expert Group was convened by WHO in May 2013 to review the current body of evidence on use of Xpert MTB/RIF. The resulting recommendations from the Expert Group are included in the WHO Policy update, which widens the recommended use of Xpert MTB/RIF, including for the diagnosis of paediatric TB and on selected specimens for the diagnosis of extrapulmonary TB, and includes an additional recommendation on the use of Xpert MTB/RIF as the initial diagnostic test in all individuals presumed to have pulmonary TB. The accompanying Xpert MTB/RIF implementation manual has been developed to replace the first edition and takes into consideration the current body of evidence and operational experiences available, in the context of the Policy update.

Who Handbook for Guideline Development Dec 31 2019 This handbook provides detailed instructions for guideline developers on the following topics: application of high quality methodology for guideline development using systematic search strategies, synthesis and quality assessment of the best available evidence to support the recommendations; appropriate collection and management of experts' declared conflict of interest; expert group composition including content experts, methodologists, target users, policy makers, with gender and geographical balance; instructions for the management of group process to achieve consensus among experts; standards for a transparent decision-making process, taking into consideration potential harms and benefits, end users values and preferences;

developing plans for implementing and adapting guidelines; and minimum standards for reporting.--Publisher description

SiroFast, Fabric Assurance by Simple Testing Mar 02 2020

Life Cycle Analysis and Assessment in Civil Engineering: Towards an Integrated Vision Aug 19 2021 This volume contains the papers presented at IALCCE2018, the Sixth International Symposium on Life-Cycle Civil Engineering (IALCCE2018), held in Ghent, Belgium, October 28-31, 2018. It consists of a book of extended abstracts and a USB device with full papers including the Fazlur R. Khan lecture, 8 keynote lectures, and 390 technical papers from all over the world. Contributions relate to design, inspection, assessment, maintenance or optimization in the framework of life-cycle analysis of civil engineering structures and infrastructure systems. Life-cycle aspects that are developed and discussed range from structural safety and durability to sustainability, serviceability, robustness and resilience. Applications relate to buildings, bridges and viaducts, highways and runways, tunnels and underground structures, off-shore and marine structures, dams and hydraulic structures, prefabricated design, infrastructure systems, etc. During the IALCCE2018 conference a particular focus is put on the cross-fertilization between different sub-areas of expertise and the development of an overall vision for life-cycle analysis in civil engineering. The aim of the editors is to provide a valuable source of cutting edge information for anyone interested in life-cycle analysis and assessment in civil engineering, including researchers, practising engineers, consultants, contractors, decision makers and representatives from local authorities.

Dietary Bioactives and Bone Health Oct 21 2021 Dietary Bioactives and Bone Health.

Tuberculosis Prevalence Surveys Jul 06 2020 The first edition of this book "Assessing tuberculosis prevalence through population-based surveys" was published by the World Health Organization in 2007 (ISBN 9789290613145). Its aim was to provide guidance to countries about how to estimate the prevalence of tuberculosis (TB) disease through population-based surveys. Designed for TB experts, survey investigators, researchers and advisers at national and international levels, the "red book" (as it soon came to be known) explained the core survey methods, including calculation of sample sizes, strategies for screening and diagnosis, case definitions, field operations, and how to analyse and report results. This second (lime) edition will help users to justify, design, fund, implement and analyse a high-quality national TB prevalence survey; to repeat surveys that allow comparisons with earlier surveys; to maximize the value of the data collected during surveys; and to ensure standardisation of methods across multiple surveys in more than 20 countries in WHO's African, Eastern Mediterranean, South-East Asia and Western Pacific regions.

Besh Big Easy Aug 26 2019 In this, his fourth big cookbook, the award-winning chef John Besh takes another deep dive into the charm and authenticity of creole cooking inspired by his hometown, New Orleans. *Besh Big Easy: 101 Home-Cooked New Orleans Recipes*, is a fresh and delightful new look at his signature food. *Besh Big Easy* will feature all new recipes and easy dishes, published in a refreshing new flexibound format and accessible to cooks everywhere. Much has changed since Besh wrote his bestselling *My New Orleans* in 2009. His restaurant empire has grown from two to twelve acclaimed eateries, from the highly praised Restaurant August to the just opened farm-to-table taqueria, Johnny Sanchez. John's television career has blossomed as well. He's become known to millions as host of two national public television cooking shows based on his books and of *Hungry Investors* on Spike TV. *Besh Big Easy* is dedicated to accessibility in home cooking and Orleans cuisine. "There's no reason a good jambalaya needs two dozen ingredients," John says. In this book, jambalaya has less than ten, but sacrifices nothing in the way of flavor and even offers exciting yet simple substitutions. With 101 original, personal recipes such as Mr. Sam's Stuffed Crabs, Duck Camp Shrimp & Grits, and Silver Queen Corn Pudding, *Besh Big Easy* is chock-full of the vivid personality and Louisiana flavor that has made John Besh such a popular American culinary icon. Happy eating!

A Practical Guide to Global Point-of-Care Testing Jul 26 2019 Point-of-care testing (POCT) refers to pathology testing performed in a clinical setting at the time of patient consultation, generating a rapid test result that enables informed and timely clinical action to be taken on patient care. It offers patients greater convenience and access to health services and helps to improve clinical outcomes. POCT also provides innovative solutions for the detection and management of chronic, acute and infectious diseases, in settings including family practices, Indigenous medical services, community health facilities, rural and remote areas and in developing countries, where health-care services are often geographically isolated from the nearest pathology laboratory. *A Practical Guide to Global Point-of-Care Testing* shows health professionals how to set up and manage POCT services under a quality-assured, sustainable, clinically and culturally effective framework, as well as understand the wide global scope and clinical applications of POCT. The book is divided into three major themes: the management of POCT services, a global perspective on the clinical use of POCT, and POCT for specific clinical settings. Chapters within each theme are written by experts and explore wide-ranging topics such as selecting and evaluating devices, POCT for diabetes, coagulation disorders, HIV, malaria and Ebola, and the use of POCT for disaster management and in extreme environments. Figures are included throughout to illustrate the concepts, principles and practice of POCT. Written for a broad range of practicing health professionals from the fields of medical science, health science, nursing, medicine, paramedic science, Indigenous health, public health, pharmacy, aged care and sports medicine, *A Practical Guide to Global Point-of-Care Testing* will also benefit university students studying these health-related disciplines.

Systematic Screening for Active Tuberculosis Aug 07 2020 There have been calls to revisit the experiences of TB screening campaigns that were widely applied in Europe and North America in the mid-20th century, as well as more recent experiences with TB screening in countries with a high burden of the disease, and to assess their possible relevance for TB care and prevention in the 21st century. In response, WHO has developed guidelines on screening for active TB. An extensive review of the evidence has been undertaken. The review suggests that screening, if done in the right way and targeting the right people, may reduce suffering and death, but the review also highlights several reasons to be cautious. As discussed in detail in this book, there is a need to balance potential benefits against the risks and costs of screening; this conclusion is mirrored by the history of TB screening. This publication presents the first comprehensive assessment by WHO of the appropriateness of screening for active TB since the recommendations made in 1974 by the Expert Committee. However, the relative effectiveness and cost effectiveness of screening remain uncertain, a point that is underscored by the systematic reviews presented in this guideline. Evidence suggests that some risk groups should always be screened, whereas the prioritization of other risk groups as well as the choice of screening approach depend on the epidemiology, the health-system context, and the resources available. This book sets out basic principles for prioritizing risk groups and choosing a screening approach; it also emphasizes the importance of assessing the epidemiological situation, adapting approaches to local situations, integrating TB screening into other health-promotion activities, minimizing the risk of harm to individuals, and engaging in continual

monitoring and evaluation. It calls for more and better research to assess the impact of screening and to develop and evaluate new screening tests and approaches.

Multiscale Materials Modeling Sep 27 2019 This book presents current spatial and temporal multiscale approaches of materials modeling. Recent results demonstrate the deduction of macroscopic properties at the device and component level by simulating structures and materials sequentially on atomic, micro- and mesostructural scales. The book covers precipitation strengthening and fracture processes in metallic alloys, materials that exhibit ferroelectric and magnetoelectric properties as well as biological, metal-ceramic and polymer composites. The progress which has been achieved documents the current state of art in multiscale materials modelling (MMM) on the route to full multi-scaling. Contents: Part I: Multi-time-scale and multi-length-scale simulations of precipitation and strengthening effects Linking nanoscale and macroscale Multiscale simulations on the coarsening of Cu-rich precipitates in α -Fe using kinetic Monte Carlo, Molecular Dynamics, and Phase-Field simulations Multiscale modeling predictions of age hardening curves in Al-Cu alloys Kinetic Monte Carlo modeling of shear-coupled motion of grain boundaries Product Properties of a two-phase magneto-electric composite Part II: Multiscale simulations of plastic deformation and fracture Niobium/alumina bicrystal interface fracture Atomistically informed crystal plasticity model for body-centred cubic iron FE2AT α finite element informed atomistic simulations Multiscale fatigue crack growth modeling for welded stiffened panels Molecular dynamics study on low temperature brittleness in tungsten single crystals Multi scale cellular automata and finite element based model for cold deformation and annealing of a ferritic-pearlitic microstructure Multiscale simulation of the mechanical behavior of nanoparticle-modified polyamide composites Part III: Multiscale simulations of biological and bio-inspired materials, bio-sensors and composites Multiscale Modeling of Nano-Biosensors Finite strain compressive behaviour of CNT/epoxy nanocomposites Peptide-zinc oxide interaction

The Veiled Suite Apr 02 2020 Presents a selection of the author's poems from throughout his life, from playful early poems to themes of mourning and loss.

WHO consolidated guidelines on tuberculosis Nov 21 2021 The WHO consolidated guidelines on tuberculosis: tuberculosis preventive treatment provides a comprehensive set of recommendations for programmatic management of tuberculosis preventive treatment (PMTPT) geared towards the implementers of the WHO End TB Strategy and also for countries intent upon TB elimination (9). The guidelines are to be used primarily in national TB and HIV and maternal and child programmes or their equivalents in ministries of health and for other policy-makers working on TB, HIV, infectious diseases and maternal and child health. They are also appropriate for staff of ministries of justice, correctional services and other government agencies which deliver healthcare, including prison services, social services and immigration. The guidelines are also intended for clinicians in the public or the private sectors working on TB, HIV, infectious diseases, prevention, child health and noncommunicable diseases such as chronic kidney disease and cancer. The persons directly affected by the guidelines are risk groups for whom TB preventive treatment is recommended.

Statistical Analysis of Fatigue Data Jan 12 2021 It is commonly assumed in analysing fatigue data that there is a definite functional relationship between life in number of cycles and stress level. However, as has been pointed out several times (1, 2), an examination of the data shows considerable scatter. Even with carefully prepared smooth specimens, all from the same heat of steel, treated in the same manner and tested in the same laboratory, a range of 2 to 1 in number of cycles for failure at the same stress level is normal (1) and a range of 10 to 1 is not unusual (2). If the specimens are tested by different laboratories, slightly varying techniques will introduce further scatter (3).

Guidelines for the Programmatic Management of Drug-Resistant Tuberculosis Jun 24 2019 This 2011 update of Guidelines for the programmatic management of drug-resistant tuberculosis is intended as a tool for use by public health professionals working in response to the Sixty-second World Health Assembly's resolution on prevention and control of multidrug-resistant tuberculosis and extensively drug-resistant tuberculosis. Resolution WHA62.15, adopted in 2009, calls on Member States to develop a comprehensive framework for the management and care of patients with drug-resistant TB. The recommendations contained in these guidelines address the most topical questions concerning the programmatic management of drug-resistant TB: case-finding, multidrug resistance, treatment regimens, monitoring the response to treatment, and selecting models of care. The guidelines primarily target staff and medical practitioners working in TB treatment and control, and partners and organizations providing technical and financial support for care of drug-resistant TB in settings where resources are limited.

Current Therapy and Surgery for Urogenital Tuberculosis Sep 07 2020 This book is written by a high-skilled specialist with huge experience in diagnosis, therapy and surgery for urogenital tuberculosis UGTB is the second most common form of TB in countries with a severe epidemic situation and the third most common form in regions with low incidence of TB. With patients living in the region of a high TB incidence rate or patients who had contact with TB or suffer from recurrent course of the disease, all urogenital tract infections should be tested for UGTB. Patients with tuberculosis, including UGTB need long multi-drug chemotherapy, and compliance depends on the drug tolerance. Anti-TB therapy for kidney TB was complicated by adverse effects in 41.0%. This book discovers ways of minimizing side effects and presents optimal regimens and surgical techniques for UGTB patients.

Materials Design and Applications II May 16 2021 This book highlights fundamental research on the design and application of engineering materials, and predominantly mechanical engineering applications. This area includes a wide range of technologies and materials, including metals, polymers, composites, and ceramics. Advanced applications include manufacturing cutting-edge materials, testing methods, and multi-scale experimental and computational aspects. The book introduces readers to a wealth of engineering applications in transport, civil, packaging and power generation.

International Food Marketing & Technology Jun 28 2022

Quality Today May 28 2022

Global Tuberculosis Report 2019 Mar 26 2022 WHO has published a global TB report every year since 1997. The main aim of the report is to provide a comprehensive and up-to-date assessment of the TB epidemic, and of progress in prevention, diagnosis and treatment of the disease, at global, regional and country levels. This is done in the context of recommended global TB strategies and targets endorsed by WHO's Member States, broader development goals set by the United Nations (UN) and targets set in the political declaration at the first UN high-level meeting on TB (held in September 2018). The 2019 edition of the global TB report was released on 17 October 2019. The data in this report are updated annually. Please note that direct comparisons between estimates of TB disease burden in the latest report and previous reports are not appropriate. The most recent time-series of estimates are published in the 2019

global TB report.

Glassy Nuclei in Amorphous Ice Jul 30 2022 Christina Maria Tonauer finds novel evidence for the first-order nature of the transition between high-density amorphous ice (HDA) and low-density amorphous ice (LDA), supporting water's liquid-liquid transition scenarios. Pressure-dependent crystallisation experiments of differently prepared expanded high-density amorphous ice samples (eHDA) and subsequent powder x-ray diffraction experiments disclose nucleation of LDA domains in bulk HDA, a typical feature of a first-order transition. The comparison of pressure-dependent crystallisation temperatures of eHDA samples with LDA nuclei and bulk LDA allows the estimation of the Laplace pressure and the size of a LDA nucleus.

Field Epidemiology May 04 2020 Based on decades of experience this work describes in simple, practical terms the approach, tasks and action required for a successful field investigation.

Characterization of Minerals, Metals, and Materials 2015 Nov 09 2020 This collection focuses on the characterization of minerals, metals, and materials as well as the application of characterization results on the processing of these materials. Papers cover topics such as clays, ceramics, composites, ferrous metals, non-ferrous metals, minerals, electronic materials, magnetic materials, environmental materials, advanced materials, and soft materials. In addition, papers covering materials extraction, materials processing, corrosion, welding, solidification, and method development are included. This book provides a current snapshot of characterization in materials science and its role in validating, informing, and driving current theories in the field of materials science. This volume will serve the dual purpose of furnishing a broad introduction of the field to novices while simultaneously serving to keep subject matter experts up-to-date.

Epoxy Composites Feb 10 2021

WHO consolidated guidelines on tuberculosis. Module 3 Apr 26 2022 The political declaration of the first United Nations (UN) high-level meeting on tuberculosis (TB) calls countries to diagnose and treat 40 million people with TB globally between 2018 and 2022. Traditionally, in most countries, TB diagnosis has been performed using sputum-smear microscopy, a method developed more than 100 years ago, with suboptimal sensitivity. In recent years new technologies have emerged based on the detection of mycobacterial DNA or mycobacterial antigens. Over the past decade the World Health Organization (WHO) has published a number of guidelines developed by WHO-convened Guideline Development Groups (GDGs), using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach to summarize the evidence and to formulate policy recommendations and accompanying remarks. The present document "WHO consolidated guidelines on tuberculosis. Module 3: Diagnosis - Rapid diagnostics for tuberculosis detection" consolidates five guidelines developed by WHO between 2016 and 2020. Earlier guidelines on diagnostics that were not developed according to the GRADE approach have not been included in this document. The WHO Consolidated Guidelines on Tuberculosis will group all TB recommendations in one document and will be complemented by matching modules of an operational handbook. The handbook will provide practical advice on how to put in place the recommendations at the scale needed to achieve national and global impact. A range of new diagnostic technologies have been endorsed by WHO during the past decade. These are listed below: - real-time polymerase chain reaction (PCR) assays - for example, Xpert MTB/RIF(r) (Ultra) (cartridge-based) and Truenat™ (chip-based);- line probe assays (LPAs) - for example, GenoType(r) MTBDRplus v1 and v2, Genoscholar™ NTM+MDR TB II and GenoType(r) MTBDRsl;- loop-mediated isothermal amplification (LAMP) - for example, TB-LAMP; and- antigen detection in a lateral flow format (biomarker-based detection) - for example, Alere Determine™ TB LAM Ag. The present "WHO consolidated guidelines on tuberculosis. Module 3: Diagnosis - Rapid diagnostics for tuberculosis detection" provides background, justification and recommendations on these technologies. The document includes new recommendations on molecular assays intended as initial tests for the diagnosis of pulmonary and extrapulmonary TB and rifampicin resistance in adults and children.

Information Systems Architecture and Technology: Proceedings of 40th Anniversary International Conference on Information Systems Architecture and Technology – ISAT 2019 Mar 14 2021 This three-volume book highlights significant advances in the development of new information systems technologies and architectures. Further, it helps readers solve specific research and analytical problems and glean useful knowledge and business value from data. Each chapter provides an analysis of a specific technical problem, followed by a numerical analysis, simulation, and implementation of the solution to the real-world problem. Managing an organization, especially in today's rapidly changing environment, is a highly complex process. Increased competition in the marketplace, especially as a result of the massive and successful entry of foreign businesses into domestic markets, changes in consumer behaviour, and broader access to new technologies and information, calls for organisational restructuring and the introduction and modification of management methods using the latest scientific advances. This situation has prompted various decision-making bodies to introduce computer modelling of organization management systems. This book presents the peer-reviewed proceedings of the 40th Anniversary International Conference "Information Systems Architecture and Technology" (ISAT), held on September 15–17, 2019, in Wrocław, Poland. The conference was organised by the Computer Science Department, Faculty of Computer Science and Management, Wrocław University of Sciences and Technology, and University of Applied Sciences in Nysa, Poland. The papers have been grouped into three major sections: Part I—discusses topics including, but not limited to, artificial intelligence methods, knowledge discovery and data mining, big data, knowledge-based management, Internet of Things, cloud computing and high-performance computing, distributed computer systems, content delivery networks, and service-oriented computing. Part II—addresses various topics, such as system modelling for control, recognition and decision support, mathematical modelling in computer system design, service-oriented systems, and cloud computing, and complex process modelling. Part III—focuses on a number of themes, like knowledge-based management, modelling of financial and investment decisions, modelling of managerial decisions, production systems management, and maintenance, risk management, small business management, and theories and models of innovation.

Mineral Nutrition of Animals Jan 30 2020 Mineral Nutrition of Animals reviews the research on the mineral nutrition of animals. This book explores the biological function and metabolism of minerals in the body, as well as mineral feeding of various species of farm animals. Topics range from water metabolism and mineral composition of feeds to the physiological role of macroelements such as calcium and potassium and microelements such as iron and copper. This text is comprised of 16 chapters; the first of which provides a historical overview of the science of mineral feeding of animals; mineral elements and their function in animal nutrition; and mineral feeding of animals under industrial conditions. The chapters that follow present general information on minerals, describe the link

between biogeochemical regions and biochemical ecology, and analyze the factors affecting the mineral composition of animals' bodies. The reader is also introduced to water metabolism and the water requirements of animals; the metabolism of minerals absorbed into the digestive tract; and the kinetics of mineral metabolism in the blood, organs, and tissues. The next section is devoted to mineral feeding of various species of farm animals such as cattle, sheep, pigs, and poultry. This text concludes by looking at methods of controlling the adequacy of farm animals' mineral diet. This book will be of interest to students and practitioners in agriculture and food science.

Thomas Register of American Manufacturers and Thomas Register Catalog File Aug 31 2022 Vols. for 1970-71 includes manufacturers' catalogs.

Materials World Feb 22 2022

WHO consolidated guidelines on tuberculosis. Module 3 Jan 24 2022 The "WHO consolidated guidelines on tuberculosis. Module 3: Diagnosis - Rapid diagnostics for tuberculosis detection 2021 update" is the latest document replacing the one issued in 2020. Three new nucleic acid amplification test (NAAT) classes are endorsed by WHO and included in the latest consolidated guideline: 1. moderate complexity automated NAATs, recommended for the initial detection of TB and resistance to rifampicin and isoniazid, providing more options for early diagnosis of TB and rifampicin-resistant TB but also addressing an important gap in the rapid diagnosis of isoniazid-resistant and rifampicin-susceptible TB; 2. low complexity automated NAATs, recommended for the detection of resistance to isoniazid and second-line anti-TB agents, which will improve access to testing of resistance to fluoroquinolones at peripheral level; and 3. high complexity reverse hybridization-based NAATs, recommended for the detection of pyrazinamide resistance, representing the first molecular tests for resistance determination to this drug. The consolidated guideline provides background, justification and recommendations on these and earlier endorsed TB diagnostic technologies. This document is accompanied by the "WHO operational handbook on tuberculosis. Module 3: Diagnosis - Rapid diagnostics for tuberculosis detection 2021 update", which aims at facilitating the implementation of the WHO recommendations by the Member States, technical partners, and others involved in managing patients with TB and DR-TB.

Biomedical Technology Apr 14 2021 This book provides an overview of new mathematical models, computational simulations and experimental tests in the field of biomedical technology, and covers a wide range of current research and challenges. The first part focuses on the virtual environment used to study biological systems at different scales and under multiphysics conditions. In turn, the second part is devoted to modeling and computational approaches in the field of cardiovascular medicine, e.g. simulation of turbulence in cardiovascular flow, modeling of artificial textile-reinforced heart valves, and new strategies for reducing the computational cost in the fluid-structure interaction modeling of hemodynamics. The book's last three parts address experimental observations, numerical tests, computational simulations, and multiscale modeling approaches to dentistry, orthopedics and otology. Written by leading experts, the book reflects the remarkable advances that have been made in the field of medicine, the life sciences, engineering and computational mechanics over the past decade, and summarizes essential tools and methods (such as virtual prototyping of medical devices, advances in medical imaging, high-performance computing and new experimental test devices) to enhance medical decision-making processes and refine implant design. The contents build upon the International Conference on Biomedical Technology 2015 (ICTB 2015), the second ECCOMAS thematic conference on Biomedical Engineering, held in Hannover, Germany in October 2015.

Antimicrobial Resistance Dec 23 2021 Summary report published as technical document with reference number:

WHO/HSE/PED/AIP/2014.2.

Practical Testing and Evaluation of Plastics Nov 29 2019 Engineering with polymers is a growing technical field which requires special knowledge. Filling a need, this ready reference brings together the hard-to-get and recently acquired knowledge usually only found scattered in the original literature. At the beginning, the reference introduces plastics as a class of technical materials, gives an overview of their properties, presents plastics processing and its possible influence on the achievable quality of plastic parts. Afterwards, plastics testing is presented as a separate, practical-scientific field of work. The possibilities and fields of application of plastics testing will be discussed. This is followed by a comprehensive treatment of the individual, relevant test areas for the characterization and qualification of plastics and plastic molded parts made from them, with descriptions of the corresponding, practical test methods. A comprehensive index provides easy access to relevant information for successful engineering with plastics and suitable methods for material characterization and for quality assurance and damage analysis of parts. Written by experienced academics and industrial researchers and developers who know the problems of plastics engineers in their daily work - and the solutions - inside out, this book offers first-hand practical knowledge and intensive discussion. The book is aimed at industry, scientists and students involved in plastics and plastic engineering and aims to help them gain the necessary understanding of polymer materials and knowledge of practical testing and evaluation of plastics.

Sustainable Production in Food and Agriculture Engineering Oct 01 2022 This book is a collection of original research and review papers that report on the state of the art and recent advancements in food and agriculture engineering, such as sustainable production and food technology. Encompassed within are applications in food and agriculture engineering, biosystem engineering, plant and animal production engineering, food and agricultural processing engineering, storing industry, economics and production management and agricultural farms management, agricultural machines and devices, and IT for agricultural engineering and ergonomics in agriculture.

Computational Methods and Experimental Testing In Mechanical Engineering Jun 16 2021 This book covers a variety of topics in mechanics, with a special emphasis to fluid mechanics and energy transfer. Chapters are based on selected contributions presented during the Algerian Congress of Mechanics (CAM 2017), held on November 26 - 30, 2017, in Constantine, Algeria. The book covers theoretical analysis, modeling, and numerical treatment of performance-related problems of new refrigeration systems, heating and cooling. It reports on experimental research to solve problems related to the flow of microfluids, and relevant applications in the areas of chemical engineering, biochemistry, biomedicine and renewable energy. Further topics include methods for maintenance of mechanical structures, strength, wear, fracture, damage and life of structures, and image processing solutions for the design and 3D manufacturing of mechanical parts. Improvement, control and regulation of urban road traffic are also discussed in this book, thus offering a comprehensive, practice-oriented reference guide for academics and professionals.

Ensuring Innovation in Diagnostics for Bacterial Infection Dec 11 2020

Acoustic Emission Testing Sep 19 2021 Acoustic Emission (AE) techniques have been studied in civil engineering for a long time. The techniques are recently going to be more and more applied to practical applications and to be standardized in the codes. This is because the increase of aging structures and disastrous damages due to recent earthquakes urgently demand for maintenance and retrofit of civil structures in service for example. It results in the need for the development of advanced and effective inspection techniques. Thus, AE techniques draw a great attention to diagnostic applications and in material testing. The book covers all levels from the description of AE basics for AE beginners (level of a student) to sophisticated AE algorithms and applications to real large-scale structures as well as the observation of the cracking process in laboratory specimen to study fracture processes.

Global Tuberculosis Report 2015 Jul 18 2021 Chapter 1. Introduction -- chapter 2. Disease burden and 2015 targets assessment -- chapter 3. TB case notifications and treatment outcomes -- chapter 4. Drug-resistant TB -- chapter 5. Diagnostics and laboratory strengthening -- chapter 6. Addressing the co-epidemics of TB and HIV -- chapter 7. Financing -- chapter 8. Research and development -- Annexes.

State of the Art Imaging of Osteoarthritis Jun 04 2020 This issue takes a multimodality approach to imaging of osteoarthritis. Clinical issues including an overview of the disease and imaging as an aid to evaluate patient functionality are also reviewed. Not only are current standards for imaging covered, but also newer techniques under development.

Research for Universal Health Coverage Oct 09 2020 "The World Health Report: research for universal health coverage" focuses on the importance of research in advancing progress towards universal health coverage. In addition, it identifies the benefits of increased investment in health research by low- and middle-income countries using case studies from around the world, and proposes ways to further strengthen this type of research.