Record Nr. UNINA9910153182603321 Analysis and Analyzers: Volume II / / edited by Béla G. Lipták and **Titolo** Kriszta Venczel Pubbl/distr/stampa Boca Raton, FL:,: Taylor and Francis, an imprint of CRC Press,, 2016 **ISBN** 1-315-35324-5 1-5231-0871-1 1-315-37032-8 1-4987-2769-7 Edizione [Fifth edition.] Descrizione fisica 1 online resource (1,333 pages) Disciplina 629.8 Soggetti Process control Measuring instruments Automatic control Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto Analytical Measurement--Analyzer Selection and Application --Ammonia Analyzers -- Analyzer Sampling: Air Monitoring -- Analyzer Sampling: Stack Particulates -- Analyzer Sampling: General Process --Biometers to Quantify Microorganisms -- Carbon Dioxide -- Carbon Monoxide -- Chlorine Analyzers -- Chromatographs: Gas --Chromatographs: Liquid -- Coal Analyzers -- Colorimeters --Combustible Gas or Vapor Sensors -- Conductivity Analyzers --Consistency Measurement -- Corrosion Monitoring -- Cyanide (CNWAD) Analyzers -- Differential Vapor Pressure -- Dioxin, PCB, and Furan Analysis -- Electrochemical Analyzers -- Elemental Analyzers --Fiber-Optic Probes -- Flame, Fire, and Smoke Detectors -- Fluoride Analyzers -- Hazardous and Toxic Gas Monitoring -- Heating Value Calorimeters -- Hydrocarbon Analyzers -- Hydrogen Cyanide (HCN) Detectors -- Hydrogen Analyzers -- Hydrogen Sulfide -- Infrared and Near-Infrared Analyzers -- Ion-Selective Electrodes -- Leak Detectors -- Mass Spectrometers -- Mercury in Ambient Air -- Mercury in Water -- Moisture in Air: Humidity and Dew Point -- Moisture in Gases and

Liquids -- Moisture in Solids -- Molecular Weight of Liquids -- Natural Gas Measurements -- Nitrate, Ammonia, and Total Nitrogen --Nitrogen Oxide Analyzers -- Odor Detection -- Oil in or on Water --OxidationReduction Potential -- Oxygen Demands (BOD, COD, TOD) --Oxvgen in Gases -- Oxvgen in Liquids (Dissolved Oxygen) -- Ozone in Gas -- Ozone in Water -- Particle Size and Distribution Monitors --Particulates, Opacity, Smoke Detection, and Sampling -- pH Measurement -- Phosphate Analyzer -- Physical Properties Analyzers: ASTM Methods -- Raman Analyzers -- Refractometers -- Rheometers -- Sand Concentration and Subsea Pipeline Erosion Detectors --Spectrophotometers, Open Path -- Streaming Current Particle Charge Analyzer -- Sulfur Dioxide and Trioxide -- Sulfur in Oil and Gas --Thermal Conductivity Detectors -- Total Carbon and Total Organic Carbon Analyzers -- Turbidity, Sludge, and Suspended Solids --Ultraviolet and Visible Analyzers -- Viscometers: Application and Selection -- Viscometers: Industrial -- Viscometers -- Water Quality Monitoring -- Wet Chemistry and Autotitrator Analyzers -- Appendix--Definitions--Abbreviations and Acronyms--Organization Name Abbreviations--Flowsheet and Functional Diagrams Symbols--Conversion among Engineering Units--Chemical Resistance of Materials--Composition of Materials--Steam Tables.

Sommario/riassunto

The Instrument and Automation Engineers' Handbook (IAEH) is the #1 process automation handbook in the world. Volume two of the Fifth Edition, Analysis and Analyzers, describes the measurement of such analytical properties as composition. Analysis and Analyzers is an invaluable resource that describes the availability, features, capabilities, and selection of analyzers used for determining the quality and compositions of liquid, gas, and solid products in many processing industries. It is the first time that a separate volume is devoted to analyzers in the IAEH. This is because, by converting the handbook into an international one, the coverage of analyzers has almost doubled since the last edition. Analysis and Analyzers: Discusses the advantages and disadvantages of various process analyzer designs, Offers application- and method-specific guidance for choosing the best analyzer. Provides tables of analyzer capabilities and other practical information at a glance, Contains detailed descriptions of domestic and overseas products, their features, capabilities, and suppliers, including suppliers' web addresses. Complete with 82 alphabetized chapters and a thorough index for quick access to specific information, Analysis and Analyzers is a must-have reference for instrument and automation engineers working in the chemical, oil/gas, pharmaceutical, pollution, energy, plastics, paper, wastewater, food, etc. industries. About the eBookThe most important new feature of the IAEH, Fifth Edition is its availability as an eBook. The eBook provides the same content as the print edition, with the addition of thousands of web addresses so that readers can reach suppliers or reference books and articles on the hundreds of topics covered in the handbook. This feature includes a complete bidders' list that allows readers to issue their specifications for competitive bids from any or all potential product suppliers.