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Nota di contenuto	Cover -- Copyright -- Contents -- Committees -- Sponsors -- Environment/Waste Treatment -- Assessing the Suitability of Mine Tailings as a Geopolymer Precursor Material for Subsurface Engineered Barriers During In-situ Recovery Operations -- Sustainable Water Recovery From Hydrometallurgical Effluents Using Gas Hydrate Based Desalination -- In Pursuit of Zero Discharge: Forward Osmosis and Freeze Concentration for Hydrometallurgical Wastewater Recycling -- Materials for Clean Energy -- The Atlas Materials Process for Carbon Negative Nickel and Cobalt Recovery from Laterites -- Metal Extraction -- Atmospheric Tank Leaching of Chalcopyrite Concentrate in Ferric Sulfate Media -- Use of Activated Carbon as Copper Substitutes During Cobalt Cementation for Zinc Electrolyte Purification -- Evaluating the Use of a Dynamic Model to Predict Direct Copper Electrowinning Tankhouse Performance -- Precious Metals Refinery Transformation - Piloting as a Basis for Success -- Optimisation of Silver Electrorefining at Aurubis -- Improving the Rate of Recovery from Copper Leach Residue with the Addition of a Wetting Aid: A Metallurgical and Geophysical Study -- Performance Evaluation of Modified Biopolymers as Acid Suppressants in Copper Electrowinning -- Leaching Metals from Phyllosilicate Ores -- High Performance Liquid Chromatography

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Suppression of Ammonium Thiosulfate Gold Leaching in the Presence of Arsenopyrite and a Pretreatment to Improve Gold Extraction -- Copper Extraction from Chalcopyrite in Various Hydrometallurgical Systems -- Agglomeration Scale: A Method to Improve Leaching Performance -- Kupferglimmer - Its Identification and Leaching in Copper Anode Slimes -- Plant Practices -- Reverse Osmosis Treatment of In-situ Copper Leach Solution -- Comprehensive Analysis of Cathode Stripping Behavior: Simulation by the Finite Element Method and Experimental Results -- Rare Earth/Critical Minerals -- Temperature Dependence of Biooxidation of Coal-Based Pyrite -- Hydrometallurgical Treatment of Copper Flash Smelter Dusts via Ammoniacal Leaching -- Sequential Leaching of Nevada Sedimentary Claystones for Subsequent Selective Lithium Extraction -- Intra-Lanthanide Separation Processes Using Neutral Diglycolamide Extractants -- Enhancing the Recovery of Rare Earths and Phosphate Enriched By-product from Monazite Ore via Sulfuric Acid Baking with Additives -- Fluoride-Free Processing of Columbite Concentrate for Selective Recovery of -- Fluoride Control and Flowsheet Development for the Hydrometallurgical Processing of Bastnaesite Concentrates -- Use of Hydrogen Peroxide to Inhibit Silicon Co-Extraction with Iron During Slag Leaching -- Separation of Rare Earth Elements Using Electrodialysis -- Recovery/Recycling -- Palladium Pressure Leaching Kinetics in Chloride Medium, from Printed Circuit Boards, in a Pressure Reactor -- Recycling of Bauxite Residue (red mud) for Recovery of Metallic Values -- Potential of Total Recycling Valuable Materials from Light-Emitting Diodes Module by Pre-Treatment Using Heating and Resin Decomposition -- Recovery of Valuable Metals from LIBs Black Mass by Nickel Pre-loaded Extractants.

Infrared Assisted Dissolution as a New Solubilization Method for Critical Metals in Different E-Waste Streams -- Solvometallurgical Recycling of Lithium-ion Battery Components -- A Sustainable Method to Recover the Critical Metals From Spent Lithium-ion Batteries by Glycine and Sodium Metabisulfite in a Near-Neutral Solution -- Separation Technologies -- On The Feasibility of Forward Osmosis and Freeze Concentration: A Process Simulation and Cost Analysis -- Rare Earth Elements Separation Principles and Methods -- Copper Refinery and Impurity Control.

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#### Sommario/riassunto

The International Symposium on Hydrometallurgy focuses on the many aspects of metallurgical processing. This volume contains more than 40 papers representing 7 major categories ranging from the fundamentals of metal extraction to environment and waste treatment processes.

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