

1. Record Nr.	UNINA9910634032403321
Autore	Wolkersdorfer C (Christian), <1964->
Titolo	Mine water treatment - active and passive methods // Christian Wolkersdorfer
Pubbl/distr/stampa	Berlin : , : Springer, , [2022] ©2022
ISBN	9783662657706 9783662657690
Descrizione fisica	1 online resource (359 pages)
Disciplina	622.5
Soggetti	Mine water
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Preface -- Acknowledgements -- Abstract Zusammenfassung Shrnutí -- English Abstract -- German Zusammenfassung -- Czech Shrnutí -- Contents -- Notes from the Author -- Legal Notice -- Company Names -- Note on Gender Mainstreaming -- Texts and Illustrations from Previous Publications -- List of Figures -- List of Tables -- 1: Introduction -- 1.1 Sidenotes - or Experiences After More Than a Decade of Literature Review -- 1.2 Definition of Terms -- 1.2.1 Problems with the Definition of Terms -- 1.2.2 Active Mine Water Treatment -- 1.2.3 Base Capacity (kB -- Acidity -- m-Value) -- 1.2.4 Mine -- 1.2.5 Bioreactor -- 1.2.6 Circular Economy -- 1.2.7 Mine Water Discharge - "Decant" -- 1.2.8 First Flush -- 1.2.9 Mine Flooding -- 1.2.10 Mine Water (Mine Drainage, Mining Influenced Water) -- 1.2.11 Constructed Wetlands for Mine Water Treatment -- 1.2.12 Coagulation and Flocculation -- 1.2.13 Net Acidic or Net Alkaline Mine Water -- 1.2.14 Passive Mine Water Treatment -- 1.2.15 Treatment Wetlands for Municipal Wastewater -- 1.2.16 Phytoremediation -- 1.2.17 pH Value -- 1.2.18 Acid Capacity (kA -- Alkalinity -- p-Value) -- 1.2.19 Acid Mine Drainage -- 1.2.20 Sorption, Adsorption, Coprecipitation, Surface Complexation and Other Such Reactions -- 1.2.21 Heavy Metal -- 1.2.22 Base Metal -- 1.3 Formation of Mine Water and Buffer Mechanisms -- 1.4 Classification of Mine Water -- 2: Preliminary Investigations -- 2.1 Introductory Remarks -- 2.2 Mine

Water Sampling -- 2.2.1 Checklists and Notes -- 2.2.2 Note on Occupational Health and Safety -- 2.2.3 Sampling Methods -- 2.2.4 Quality Control -- 2.2.5 Measuring Instruments and Sampling -- 2.2.6 Sample Names -- 2.2.7 Dissolved and Total Concentrations -- 2.2.8 Documentation -- 2.3 Essential On-Site Parameters -- 2.3.1 Introductory Note.

2.3.2 Electrical Conductivity (Specific Conductance) -- 2.3.3 Base Capacity (kB -- Acidity) -- 2.3.4 Acid Capacity (kA -- Alkalinity) -- 2.3.5 Flow and Loads -- 2.3.6 pH Value -- 2.3.7 Iron Concentration -- 2.3.8 Manganese Concentration -- 2.3.9 Aluminium Concentration -- 2.3.10 Redox Potential (Eh, ORP) -- 2.3.11 Oxygen Saturation -- 2.4 Water Analysis -- 2.5 Lime Addition or Column Tests -- 2.6 Active or Passive Mine Water Treatment? -- 2.7 The Endless Mine Water Treatment Plant -- 2.8 Pourbaix Diagrams (Stability Diagrams, Predominance Diagrams, Eh-pH-Diagrams, "Confusogram" sensu P. Wade) -- 3: Active Treatment Methods for Mine Water -- 3.1 Introduction -- 3.2 Neutralisation Process -- 3.2.1 Principles and Historical Development -- 3.2.2 Low Density Sludge (LDS) Process -- 3.2.3 High Density Sludge (HDS) Process -- 3.2.4 It Is Easier to Live in a Box -- 3.3 Electrochemical Processes -- 3.3.1 Electrocoagulation -- 3.3.2 Electrosorption (Condensation Deionisation) -- 3.3.3 Electrodialysis/Membrane-Based Electrolysis -- 3.4 Membrane-Based Processes -- 3.4.1 Introduction -- 3.4.2 Microfiltration -- 3.4.3 Ultrafiltration -- 3.4.4 Nanofiltration -- 3.4.5 Reverse Osmosis (RO) -- 3.4.6 Sparro Process (Slurry Precipitation and Recycle Reverse Osmosis) -- 3.4.7 Forward Osmosis (FO) -- 3.5 Precipitation Methods for Uncommon Contaminants -- 3.6 Ettringite Precipitation -- 3.6.1 SAVMIN™ Process -- 3.6.2 Other Procedures -- 3.7 Schwertmannite Process -- 3.8 Bioreactors (Fermenters) -- 3.9 Ion Exchange -- 3.10 Sorption -- 3.11 Advanced Oxidation -- 3.12 Flotation Liquid-Liquid Extraction (F-LLX -- VEP -- HydroFlex™ Technology) -- 3.13 Eutectic Freeze Crystallisation -- 4: Passive Treatment Methods for Mine Water -- 4.1 Note -- 4.2 What Is Passive Mine Water Treatment? -- 4.3 Limestone Drains and Channels.

4.3.1 Classification of Limestone Drains and Channels -- 4.3.2 Anoxic Limestone Drain (ALD) -- 4.3.3 Oxidic Limestone Drain (OLD) -- 4.3.4 Open Limestone Channel (OLC) -- 4.4 Constructed Wetlands -- 4.4.1 Prologue (I Have Always Wanted to Write This) -- 4.4.2 Aerobic Constructed Wetland (Reed Bed) -- 4.4.3 Anaerobic Constructed Wetland (Anaerobic Wetland, Compost Wetland) -- 4.5 Reducing and Alkalinity Producing Systems (RAPS) -- Successive Alkalinity Producing Systems (SAPS) -- Sulfate Reducing Bioreactor, Vertical Flow Wetlands -- 4.6 Settling Pond (Settling Basin, Settlement Lagoon) -- 4.7 Permeable Reactive Walls -- 4.8 Vertical Flow Reactor (VFR) -- 4.9 Passive Oxidation Systems (Cascades, "Trompe") -- 4.10 ARUM (Acid Reduction Using Microbiology) Process -- 5: Alternative Methods for the Management of Mine Water -- 5.1 Thoughts on Alternative Treatment Methods and Their Application -- 5.2 Natural and Monitored Natural Attenuation -- 5.2.1 Natural Attenuation -- 5.2.2 Monitored Natural Attenuation -- 5.3 Change in Mining Methods -- 5.4 Biometallurgy, Geobiotechnology, Biomimetics or Agro-metallurgy -- 6: In Situ and On-site Remediation Measures -- 6.1 Introductory Remark -- 6.2 In-lake Processes -- 6.2.1 Introduction -- 6.2.2 In-lake Liming -- 6.2.3 Stimulated Iron and Sulfate Reduction in Lakes -- 6.2.4 Electrochemical and Electro-biochemical Treatment -- 6.3 Chemical Treatment Measures to Reduce Pollutants -- 6.3.1 Treatment of Acidic Lakes -- 6.3.2 On-site Chemical Treatment Measures -- 6.4 Reinjection of Sludge, Treatment Residues or Lime --

6.5 Remediation of Contaminated Watercourses -- 6.6 In situ Remediation of Uranium-Containing Mine and Seepage Water -- 6.7 Mixing of Pyrite-containing Substrates with Alkaline Material -- 6.8 Closure of Drainage and Mine Adits.
 7: Post-mining Usage of Mine Sites or Residues of the Treatment Process -- 7.1 Post-mining Usage of Remediated Sites -- 7.2 Treatment Residues as Recyclable Materials (Circular Economy) -- 8: Finish -- Lagniappe - Bonus Chapter -- Explanation of Terms/Glossary/Abbreviations -- Introductory Remarks -- Glossary -- Abbreviations -- Symbols and Units -- Acronyms and Abbreviations -- References -- Index.

2. Record Nr.	UNINA9910700943403321
Autore	Sullivan Michael J
Titolo	Joint strike fighter [[electronic resource]] : restructuring should improve outcomes, but progress is still lagging overall : testimony before the Subcommittee on Tactical Air and Land Forces, Committee on Armed Services, House of Representatives / / statement of Michael J. Sullivan
Pubbl/distr/stampa	[Washington, D.C.] : , : U.S. Govt. Accountability Office, , [2011]
Descrizione fisica	1 online resource (21 pages) : illustrations
Collana	Testimony ; ; GAO-11-450T
Soggetti	F-35 (Military aircraft) - Design and construction F-35 (Military aircraft) - Economic aspects - United States
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from PDF title screen (viewed Sept. 13, 2011). "March 15, 2011."
Nota di bibliografia	Includes bibliographical references.