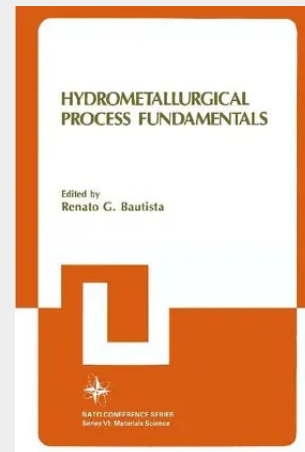


Hydrometallurgical Process Fundamentals

The mineral resources of the industrialized countries, especially the member nations of the North Atlantic Treaty Organization, are being depleted at such a rate that more and more of these countries are beginning to depend on ore imported from other countries. To sustain the economic and strategic well-being of these member countries, it becomes imperative that a program of developing and exploiting other non-conventional mineral resources and a conservation program where metal values from waste dumps and scrap metals and alloys are recycled must be initiated and implemented. In order to meet this challenge, new processes and technology must be available for consideration in the design and operation of the new plants. One of the possible routes of extracting the metals from their ores, especially for multimetal complex ores and very low grade ores, is by hydrometallurgical processing. The hydrometallurgical route of metal recovery where dissolution (leaching), separation and concentration (ion exchange, solvent extraction, and membrane separation) and reduction to metal (cementation, precipitation by gaseous reduction, and electrolysis) is carried out at near ambient temperature is becoming more competitive with the conventional high temperature processes used in the smelting of metals from high grade and beneficiated ores.

The mineral resources of the industrialized countries, especially the member nations of the North Atlantic Treaty Organization, are being depleted at such a rate that more and more of these countries are beginning to depend on ore imported from other countries. To sustain the economic and strategic well-being of these member countries, it becomes imperative that a program of developing and exploiting other non-conventional mineral resources and a conservation program where metal values from waste dumps and scrap metals and alloys are recycled must be initiated and implemented. In order to meet this challenge, new processes and technology must be available for consideration in the design and operation of the new plants. One of the possible routes of extracting the metals from their ores, especially for multimetal complex ores and very low grade ores, is by hydrometallurgical processing. The hydrometallurgical route of metal recovery where dissolution (leaching), separation and concentration (ion exchange, solvent extraction, and membrane separation) and reduction to metal (cementation, precipitation by gaseous reduction, and electrolysis) is carried out at near ambient temperature is becoming more competitive with the conventional high temperature processes used in the smelting of metals from high grade and beneficiated ores.



213,99 €

199,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780306418808

Medium: Buch

ISBN: 978-0-306-41880-8

Verlag: Humana

Erscheinungstermin: 28.02.1985

Sprache(n): Englisch

Auflage: 1984

Serie: VI Materials Science

Produktform: Gebunden

Gewicht: 1180 g

Seiten: 666

Format (B x H): 160 x 241 mm

