US007517384B2

(12) **United States Patent**
Marsden et al.

(10) **Patent No.: US 7,517,384 B2**
(45) **Date of Patent: *Apr. 14, 2009**

(54) **METHOD FOR IMPROVING METALS RECOVERY USING HIGH TEMPERATURE PRESSURE LEACHING**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 32 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **11/551,907**

(22) Filed: **Oct. 23, 2006**

(65) **Prior Publication Data**

US 2007/0039420 A1 Feb. 22, 2007

Related U.S. Application Data

(63) Continuation of application No. 10/907,324, filed on Mar. 29, 2005, now Pat. No. 7,125,436, which is a continuation of application No. 10/650,167, filed on Aug. 27, 2003, now Pat. No. 6,893,482, which is a continuation of application No. 10/238,088, filed on Sep. 9, 2002, now Pat. No. 6,626,979, which is a continuation of application No. 09/912,967, filed on Jul. 25, 2001, now Pat. No. 6,451,088.

(51) **Int. Cl.**
C22B 3/04 (2006.01)

(52) **U.S. Cl.** **75/739**; 75/743; 75/744

(58) **Field of Classification Search** 75/739, 75/743, 744

See application file for complete search history.

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(57) **ABSTRACT**

The present invention is directed to a system for recovering metal values from metal-bearing materials. During a reactive process, a seeding agent is introduced to provide a nucleation site for the crystallization and/or growth of solid species which otherwise tend to passivate the reactive process or otherwise encapsulate the metal value, thereby reducing the amount of desired metal values partially or completely encapsulated by such material. The seeding agent may be generated in a number of ways, including the recycling of residue or the introduction of foreign substances. Systems embodying aspects of the present invention may be beneficial for recovering a variety of metals such as copper, gold, silver, nickel, cobalt, molybdenum, zinc, rhenium, uranium, rare earth metals, and platinum group metals from any metal-bearing material, such as ores and concentrates.

19 Claims, 2 Drawing Sheets