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(54) **SYSTEM AND METHOD FOR PARALLEL SOLUTION EXTRACTION OF ONE OR MORE METAL VALUES FROM METAL-BEARING MATERIALS**

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See application file for complete search history.

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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 504 days.

This patent is subject to a terminal disclaimer.

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(57) **ABSTRACT**

CPC *C25C 1/22* (2013.01); *B01D 11/0488* (2013.01); *C22B 3/0005* (2013.01); *C22B 3/02* (2013.01); *C22B 3/44* (2013.01); *C22B 11/04* (2013.01); *C22B 19/00* (2013.01); *C22B 23/0407* (2013.01); *C22B 23/0453* (2013.01); *C22B 23/0461* (2013.01); *C22B 34/34* (2013.01); *C22B 59/00* (2013.01); *C22B 60/0221* (2013.01); *C22B 60/0252* (2013.01);

The present disclosure relates to a process and system for recovery of one or more metal values using solution extraction techniques and to a system for metal value recovery. In an exemplary embodiment, the solution extraction system comprises a first solution extraction circuit and a second solution extraction circuit. A first metal-bearing solution is provided to the first and second circuit, and a second metal-bearing solution is provided to the first circuit. The first circuit produces a first rich electrolyte solution, which can be forwarded to primary metal value recovery, and a low-grade raffinate, which is forwarded to secondary metal value recovery. The second circuit produces a second rich electrolyte solution, which is also forwarded to primary metal value recovery. The first and second solution extraction circuits have independent organic phases and each circuit can operate independently of the other circuit.