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(71) Applicant: CEMVITA FACTORY, INC. [US/US]; 9350 Kirby Drive, Suite 200, Houston, Texas 77054 (US).

(72) Inventors: KARIMI, Tahereh; 15243 Crescent Brookfield Drive, Humble, Texas 77396 (US). NGUYEN, Trung Huu; 12330 Skyview Amber Court, Houston,

Texas 77047 (US). DA SILVA, Marcio Luis Busi; 6903 Springcrest Court, Sugar Land, Texas 77479 (US).

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(54) Title: BIOREMEDIATION SYSTEMS FOR WASTEWATER TREATMENT AND METHODS FOR THE USE THEREOF

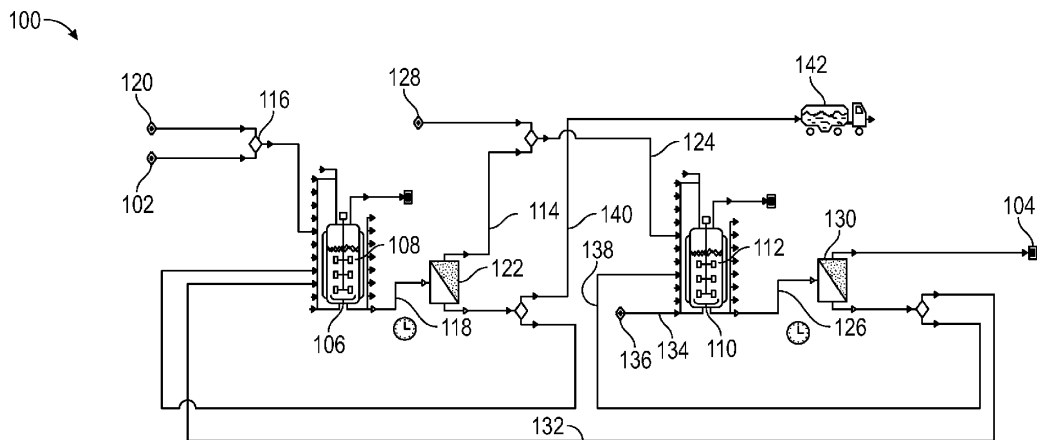


Figure 1

(57) Abstract: The present disclosure relates to bioremediation systems and methods for wastewater treatment in heavy industry, including the mining industry. A benefit of the systems and methods disclosed herein can include the reduction of heavy metals in wastewater. Another benefit can be the treatment of acidic wastewater to achieve higher pH levels. An additional benefit can be the use of carbon dioxide to raise the pH level of acidic wastewater, or to produce feedstocks for the growth of anaerobic or aerobic microorganisms that are capable of reducing a concentration of heavy metals in wastewater. A benefit of the systems and methods herein can include the treatment of acid mining drainage wastewater, as well as heavy metal removal from other industrial wastewater. Another benefit of the methods and systems disclosed herein can include reduction of excess carbon dioxide from the environment.

[Continued on next page]

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Declarations under Rule 4.17:

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