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(54) **Metallic materials for rheocasting or thixoforming and method for manufacturing the same**

(57) A method for manufacturing a metallic material for rheocasting or thixoforming and a metallic material formed using the method are provided. The method includes: applying an electromagnetic field to a vessel and loading a molten metal into the vessel; and cooling the molten metal to form a metallic material for rheocasting or thixoforming. The entire volume of molten metal is rapidly and uniformly cooled throughout, from the wall toward the center of the vessel, without generating la-

tent heat caused by the formation of solidification layers at the early stage of cooling. The molten metal in the vessel is cooled rapidly below its liquidus temperature within 1-10 seconds after the loading of the molten metal into the vessel, so that numerous uniform crystal nuclei are created throughout the entire volume of molten metal to form a metallic material having uniform, micro, spherical particles.



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EUROPEAN SEARCH REPORT

Application Number
EP 03 25 2498

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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
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