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- **Bewlaw, Bernard Patrick**
Niskayuna, NY New York 12309 (US)
- **Weimer, Michael James**
Cincinnati, OH Ohio 45215 (US)
- **Whitacre, Richard Kenneth**
Cincinnati, OH Ohio 45215 (US)

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(74) Representative: **Williams, Andrew Richard**
GPO Europe
GE International Inc.
The Ark
201 Talgarth Road
Hammersmith
London W6 8BJ (GB)

(71) Applicant: **General Electric Company**
Schenectady, New York 12345 (US)

(72) Inventors:

- **Kelly, Thomas Joseph**
Cincinnati, OH Ohio 45215 (US)

(54) **Methods for processing titanium aluminide intermetallic compositions**

(57) Methods of processing compositions containing titanium and aluminum, especially titanium aluminide intermetallic compositions (TiAl intermetallics) based on the TiAl (γ) intermetallic compound. The methods entail processing steps that include a hot isostatic pressing (HIP) cycle and a heat treatment cycle that can be performed in a single vessel. TiAl intermetallic compositions processed in this manner preferably exhibit a duplex microstructure containing equiaxed and lamellar morphologies.

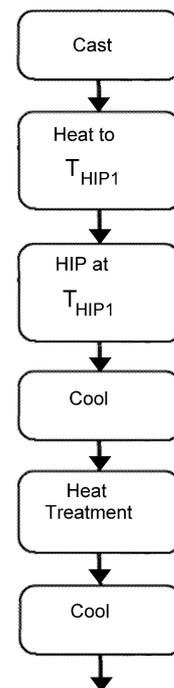


FIG. 4

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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	US 6 231 699 B1 (KELLY THOMAS J [US] ET AL) 15 May 2001 (2001-05-15) * the whole document *	1-15	INV. C22C14/00 C22F1/18
A	US 5 350 466 A (LARSEN JR DONALD E [US] ET AL) 27 September 1994 (1994-09-27) * the whole document *	1-15	
			TECHNICAL FIELDS SEARCHED (IPC)
			C22C C22F
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 5 August 2013	Examiner Brown, Andrew
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
- No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
- 1-15
- The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-15

A method for processing a titanium aluminide intermetallic alloy based on TiAl

2. claim: 16

A method for processing a titanium aluminide intermetallic alloy based on TiAl

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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05-08-2013

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6231699	B1	15-05-2001	NONE

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82