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AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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(54) Title: SPALLATION-RESISTANT THERMAL BARRIER COATING

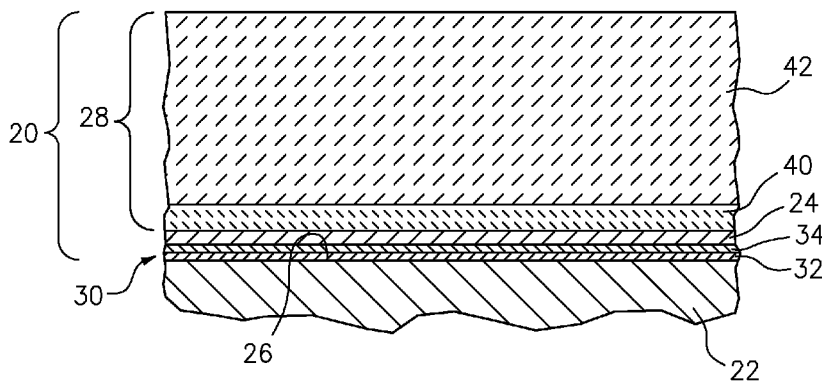


FIG. 1

(57) Abstract: A coated article has: a metallic substrate (22); a bondcoat (30); and a thermal barrier coating (TBC) (28; 28'). The bondcoat has an MCrAlY first layer (32) and an MCrAlY second layer (34), the second layer having a lower Cr content than the first layer.



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/068192**A. CLASSIFICATION OF SUBJECT MATTER****F01D 5/12(2006.01)i, F01D 5/28(2006.01)i, C23C 14/06(2006.01)i, C23C 14/14(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

F01D 5/12; C23C 30/00; F01D 5/28; C23C 4/10; B32B 15/01; B32B 15/04; C23C 4/00; C23C 28/00; C23C 4/08; C23C 14/06; C23C 14/14

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: thermal barrier coating, substrate, bondcoat, and chromium

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1939317 A2 (UNITED TECHNOLOGIES CORPORATION) 2 July 2008 See abstract; claims 1,7,8,12,16; and figure 1.	1,8,10,19,20
A		2-7,9,11-18
A	US 7,476,450 B2 (MALONEY et al.) 13 January 2009 See abstract; claims 1,11, and figure 2.	1-20
A	WO 2009-082627 A2 (GENERAL ELECTRIC COMPANY) 2 July 2009 See abstract; claim 1, and figure 1.	1-20
A	WO 2009-038743 A1 (SIEMENS ENERGY, INC.) 26 March 2009 See abstract; claims 1,6, and figure 1.	1-20
A	EP 1531192 A1 (GENERAL ELECTRIC COMPANY) 18 May 2005 See abstract; claim 1, and figure 2.	1-20

 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search

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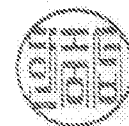
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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