



(51) International Patent Classification:

C04B 37/00 (2006.01) **C04B 35/56** (2006.01)
C04B 35/565 (2006.01) **C04B 35/58** (2006.01)

(21) International Application Number:

PCT/US2011/037296

(22) International Filing Date:

20 May 2011 (20.05.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/347,275 21 May 2010 (21.05.2010) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, 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, IS, JP, KE, KG, KM, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(88) Date of publication of the international search report:

19 April 2012

(54) Title: CERAMIC TO CERAMIC JOINT AND ASSOCIATED METHODS

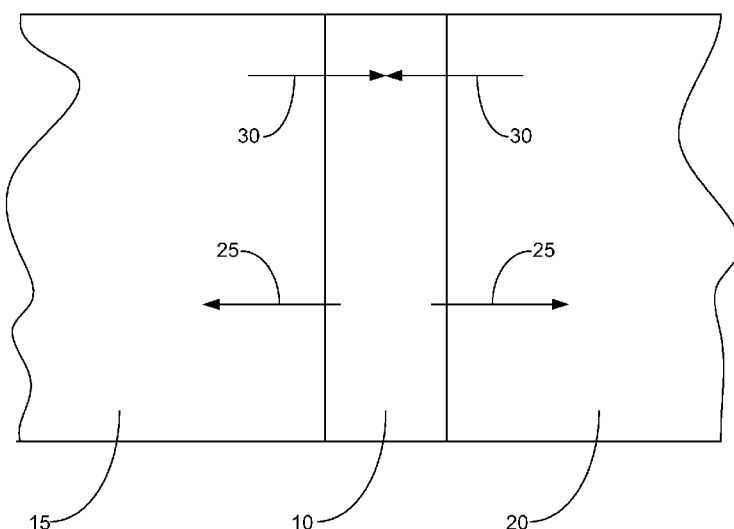


Figure 1

(57) Abstract: The present invention provides a ceramic to ceramic joint and methods for making such a joint. Generally, the joint includes a first (15) ceramic part and a second (20) ceramic part, wherein the first (15) and second (20) ceramic parts each include a ceramic-carbide or a ceramic-nitride material. In some cases, an aluminum-initiated joint region joins the first (15) and second (20) ceramic parts. This joint region typically includes chemical species from the first (15) and second (20) ceramic parts that have diffused into the joint region. Additionally, the first (15) and second (20) ceramic parts each typically include a joint diffusion zone that is disposed adjacent to the joint region and which includes aluminum species from the joint region that have diffused into the joint diffusion zone. Other implementations are also described.