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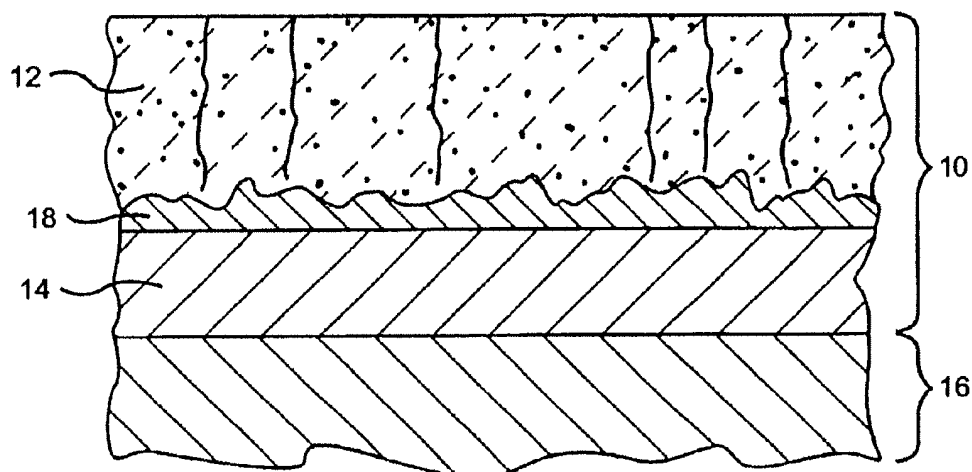
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(54) **Thermal barrier coatings and methods of producing same**

(57) A thermal insulating ceramic layer for use on metal alloy components exposed to hostile thermal and chemical environment, such as a gas turbine. The thermal barrier coating may include cracks made by a series

of steps, including subjecting at least a portion of the thermal barrier coating to a shockwave such that micro-cracks are formed in the thermal barrier coating without also substantially deforming the substrate.



**FIG. 1**



## EUROPEAN SEARCH REPORT

Application Number  
EP 09 16 1428

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X	WO 98/51906 A1 (ALLIED SIGNAL INC [US]) 19 November 1998 (1998-11-19) * page 5, line 10 - page 8, line 7 * * page 9, line 6 - line 21; claims 1-12; figure 1 * -----	1-9	
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 4 November 2010	Examiner Ovejero, Elena
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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 &amp; : member of the same patent family, corresponding document</p>			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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