

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID A. SCHULZ

Appeal No. 1997-0842
Application No. 08/305,588¹

ON BRIEF

Before PAK, OWENS and KRATZ, Administrative Patent Judges.

PAK, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 8 through 12 which are all of the claims remaining in the application.

Claim 11 is representative of the subject matter on appeal and reads as follows:

¹ Application for patent filed September 14, 1994.

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11. In a superconducting composite comprising a graphitic, pitch-based carbon fiber having a tensile strength greater than about 350 kpsi tensile strength and a thermal conductivity of at least 900 watts/m/°C, said fiber disposed within a sleeve layer of superconducting mixed oxide having a superconducting transition temperature above 77K., said mixed oxide of formula $A_1 B_2 Cu_3 O_{7-x}$ wherein A is one or more elements selected from the group consisting of yttrium, lanthanum and the lanthanides, B is one or more Group IIA elements, and x is a number between 0 and 1, the improvement wherein said sleeve layer of superconducting mixed oxide is a non-adherent sleeve surrounding said fiber.

According to pages 6 and 7 of the specification and Figures 1 and 2 of the application, the term "non-adherent" as used in claim 11 is used to define a sleeve layer of superconducting mixed oxide, which is not in contact with the claimed carbon fiber or any intermediate layer, including a compressible layer, which the sleeve layer surrounds, at the non-operating temperature of the claimed superconducting composite. See also Brief, pages 4 and 5. By providing the claimed superconducting sleeve layer spaced apart from the claimed carbon fiber or any intermediate layer therebetween, such as a compressible layer, to accommodate the shrinkage of the claimed superconducting sleeve layer at the operating temperature of the claimed superconducting composite,

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appellant avoids problems that will lead to degradation of the claimed superconducting composite.

As evidence of obviousness, the examiner relies on the following prior art:

Satek et al. (Satek) 4,975,413 Dec. 4,
1990

Claims 8 through 12 stand rejected under 35 U.S.C. § 103 as unpatentable over the disclosure of Satek.

We reverse.

Satek describes the claimed superconducting composite described in the preamble of Japson claim 11. Contrary to the examiner's argument, however, Satek does not teach, nor would have suggested, the claimed improvement relating to forming a gap between the claimed superconducting sleeve layer and the claimed fiber or any intermediate layers, which it surrounds, to accommodate its contraction at the operating temperature of the superconducting composite. In other words, the examiner has not established that Satek teaches or would have suggested the claimed "non-adherent" superconducting mixed oxide sleeve layer. Accordingly, we reverse the examiner's decision rejecting claims 8 through 12 under 35 U.S.C. § 103.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

REVERSED

CHUNG K. PAK)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
TERRY J. OWENS)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
PETER F. KRATZ)	
Administrative Patent Judge)	

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