

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(2) is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WINSTON L. HEDGES

Appeal No. 1996-1974
Application 07/930,738¹

ON BRIEF

Before CAROFF, KIMLIN and SPIEGEL, Administrative Patent
Judges.

CAROFF, Administrative Patent Judge.

DECISION ON APPEAL

This decision on appeal relates to the final rejection of
claims 1-15. Subsequent to the final rejection, appellant was
permitted to cancel claims 6-7. Claims 16-41, which had been

¹ Application for patent filed August 14, 1992.

Appeal No. 1996-1974
Application No. 07/930,738

withdrawn from further consideration as being directed to non-
elected inventions, were also canceled by appellant.

Appeal No. 1996-1974
Application No. 07/930,738

Accordingly, the claims before us on appeal are claims 1-5 and 8-15.

The claims on appeal are directed to an electrically conductive composite material including carbon black particles each coated with an intrinsically conductive polymer, e.g. polyaniline. Claim 1, the broadest of two independent claims, is representative:

1. An electrically conductive composition having improved resistance to loss of conductivity in the presence of a hostile environment, said electrically conductive composition comprising:

a plurality of carbon black particles, each of said carbon black particles having a coating of an intrinsically conductive polymer in an amount sufficient to provide a coating weight of from approximately 5 wt% to approximately 50 wt% of the carbon black particles coated with said intrinsically conductive polymer, said coating being effective to retain the electrical conductivity of the uncoated carbon black particles and to protect the surfaces of said carbon black particles from the adverse effects of a hostile environment.

The following references of record are relied upon by the examiner as evidence of obviousness:

Naarmann 1988	4,738,757	April 19,
Cameron 1990	4,935,163	June 19,

Appeal No. 1996-1974
Application No. 07/930,738

The following rejections are before us for consideration:²

(1) Claims 1-5, 8-11 and 15 stand rejected under 35
U.S.C.

§ 103 as being obvious from Naarmann.

(2) Claims 12-14 stand rejected under 35 U.S.C. § 103 as
being obvious from Naarmann taken in view of Cameron.

We shall sustain the examiner's rejections as they relate
to claims 1-5, 8-12 and 15, but reverse as to claims 13-14,
for the following reasons:

Based on the record before us, we conclude that, with the
exception of claims 13-14, the examiner has established a
prima facie case of obviousness.

Specifically, we agree with the examiner that the
reference in Naarmann to "carbon fibers or filaments or sheet-
like structures" at least generically embraces appellant's
carbon black particles and, thus, renders the use of such
particles prima facie obvious within the context of 35 U.S.C.

²By Advisory Action (Paper No. 12), the examiner has
withdrawn a previously applied rejection under 35 U.S.C. § 112
which, therefore, is not before us for consideration on
appeal.

Appeal No. 1996-1974
Application No. 07/930,738

§ 103; and even more so considering the fact that carbon black particles are broadly defined in appellant's specification. To wit, the specification (pages 9-10) allows that such particles may be of "varying graphitic content, size, morphology and shape", and "can range from highly structured tree-like shapes to minimally structured rod-like shapes". An argument is made in the Reply Brief (page 2) that appellant's carbon black particles are generally spherical rather than fibrous, filamentary or sheet-like. This argument is belied by the broad definition in appellant's own specification.

Moreover, we take note of appellant's acknowledgment in his specification (page 1, l. 19-29; page 3, l. 14-17 and l. 28-36) that carbon black is widely used as a conductive carbon material in combination with conductive polymers in applications similar to those contemplated by Naarmann; thus lending support to the conclusion that one of ordinary skill in the art would have found it prima facie obvious to employ carbon black particles, in particular, as the carbon source in Naarmann with the expectation of obtaining a conductive composite material suitable for the purposes contemplated by Naarmann.

Appeal No. 1996-1974
Application No. 07/930,738

With regard to the thickness of the polymer coating, we agree with the examiner that the choice of a suitable thickness (which we presume to be a function of the coating weight relative to the weight of the carbon black particles) would have been an obvious matter of routine optimization absent a showing of any

Appeal No. 1996-1974
Application No. 07/930,738

new or unexpected result. In this regard, we refer to the examiner's answer at page 4, l. 23-page 5, l. 2.

In a related vein, appellant argues that in Naarmann the polymer layer serves as the "primary conductive pathway"; whereas in appellant's invention, which includes a relatively thin polymer layer, it is the carbon black which is said to serve as the primary conductive element. We find this argument unconvincing since the relative conductivity of the polymer layer as compared to the carbon component is a matter of speculation unsupported by objective evidence and, in any case, is at best a theoretical distinction which is not dispositive with regard to the obviousness of appellant's invention as claimed.

With respect to the claimed requirement that the coating function to preserve the conductivity of the carbon black and inhibit interaction between the carbon black and the environment, we subscribe to the examiner's position that there would be a reasonable expectation that Naarmann's corresponding polymer layer would inherently function as instantly claimed in view of its chemical and physical similarity to appellant's polymer coatings. Appellant has not

Appeal No. 1996-1974
Application No. 07/930,738

shown otherwise.

It is well settled that when a claimed product reasonably appears to be substantially the same as a product disclosed by the prior art, the burden is properly upon the applicant to prove with objective evidence that the product of the prior art does not necessarily or inherently possess characteristics attributed to the claimed product. See In re King, 801 F. 2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); In re Best, 562 F. 2d 125-55, 195 USPQ 430, 433 (CCPA 1977).

As for claims 13-14, the examiner has failed to satisfy his initial burden to establish why it would have been obvious, withing the purview of 35 U.S.C. § 103, to use an aryl ether disulfonic acid, in particular, as a dopant in Naarmann absent any teaching or suggestion in the prior art to do so. The examiner has failed to offer any rational explanation as to why one of ordinary skill in the art would have expected such compounds to be useful for that purpose.

For the foregoing reasons, the decision of the examiner is affirmed as to claims 1-5, 8-12 and 15, but is reversed as to claimed 13-14.

Appeal No. 1996-1974
Application No. 07/930,738

Appeal No. 1996-1974
Application No. 07/930,738

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

AFFIRMED-IN-PART

MARC L. CAROFF))
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
EDWARD C. KIMLIN)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
CAROL A. SPIEGEL)	
Administrative Patent Judge)	

MLC:hh

Appeal No. 1996-1974
Application No. 07/930,738

POMS, SMITH, LANDE & ROSE
PROFESSIONAL CORPORATION
2029 CENTURY PARK EAST, SUITE 3800
LOS ANGELES, CA 90067-3036