

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* DIRK D'HONT,  
LUC VOET,  
and  
LUC LEENDERS

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Appeal No. 1998-0150  
Application 08/435,224

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HEARD: FEBRUARY 13, 2001

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Before KIMLIN, PAK, and WARREN, *Administrative Patent Judges*.  
PAK, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 through 12, which are all of the claims pending in the above-identified application.

Claim 1 is representative of the subject matter on appeal

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and reads as follows:

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1. Heat mode recording element comprising, in order:
  - (a) a support,
  - (b) a layer containing a roughening agent,
  - (c) a metal recording layer,
  - (d) a protective element.

In support of his rejection, the examiner relies on the following prior art references:

Tabei et al. (Tabei) 1983	4,388,400	Jun. 14,
Wada et al. (Wada) 1985	4,499,178	Feb. 12,
Grzeskowiak et al. (Grzeskowiak) 1987	4,711,838	Dec. 8,
Yoshihara 1991	5,017,449	May 21,

Claims 1 through 12 stand rejected under 35 U.S.C. § 103 as unpatentable over either Tabei or Wada taken together with Yoshihara or Grzeskowiak.

We have carefully reviewed the claims, specification, and applied prior art, including all of the arguments advanced by both the examiner and appellants in support of their respective positions. This review leads us to conclude that the examiner's § 103 rejection is not well founded. Accordingly, we will not sustain the examiner's § 103 rejection for essentially those reasons set forth in the Brief. We add the following for emphasis and completeness.

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The claimed subject matter is directed to a heat mode recording element comprising, in order: a support, a layer containing a roughening agent, a metal recording layer and a protective element. According to pages 5 and 6 of the specification, the claimed layer containing a roughening agent is defined as follows:

The roughening agent incorporated in layer (b) - for many actual substances this term will be equivalent to the more familiar terms "matting agent" or "spacing agent", but the term is chosen for its functional aspect - must fulfil several requirements for the successful practice of the present invention. Chemical nature, concentration and particle distribution of the roughening agent must be chosen in such a way that a certain degree of unevenness can be introduced in the metal recording layer. It is shown that this unevenness can reduce the occurrence of interference patterns because the reflectance gets more diffuse. It will be clear that the roughening agent must be closely packed in the layer. It will also be easily understood that the thickness of layer (b), the average particle size and the coverage of the roughening agent must be tuned to each other in such a way that a sufficient number of the roughening particles must protrude above the interface layer (b) / metal layer in order to induce local deformation spots into this metal layer. When the average particle size is too low the roughening agent will not be able to introduce unevenness in the metal layer. When the average particle size is too great too high a coverage will be required which would make layer (b) too thick. So it is clear that an optimal particle size should be chosen for the roughening agent and that this optimum will depend on the mechanical strength of

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the metal layer and therefore on its thickness.

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Accordingly, we interpret the appealed claims as requiring their layer containing a roughening agent to have a sufficient number

of protruding roughening particles and to be located just below the claimed metal recording layer to "induce local deformation spots into this metal [recording] layer."

Having interpreted the appealed claims as indicated above, we review the content of the prior art relied upon by the examiner to determine whether the examiner has established a *prima facie* case of obviousness under 35 U.S.C. § 103. Our review indicates that both Tabei and Wada describe a heat-mode recording material comprising a support, a metal recording layer, and a protective element. As is apparent from pages 4 and 5 of the Answer, the examiner recognizes that both Tabei and Wada do not describe a roughening agent containing layer located just below a metal recording layer, providing a sufficient number of protruding roughening particles therefrom for the purpose of inducing "local deformation spots" into the metal recording layer.

To remedy this deficiency, the examiner relies on the disclosure of Yoshihara or Grzeskowiak. However, not only do

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they not teach or suggest employing the above-mentioned roughening agent containing layer just below a metal recording layer to "induce . . . deformation spots into this metal layer," but they also do not teach or suggest using their roughening agent containing layer in a heat-mode recording material. Nor has the examiner explained why it would have been obvious to one of ordinary skill in the art to use the roughening agent containing layer employed in Yoshihara's electrophotographic photosensitive member or Grzeskowiak's photographic elements just below the metal recording layer of the heat-mode recording material of the type described in Tabei or Wada.

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Under these circumstances, we agree with appellants that the examiner has not carried his burden of establishing a *prima facie* case of obviousness regarding the claimed subject matter under 35 U.S.C. § 103. Accordingly, on this record, we are constrained to reverse the examiner's decision rejecting all of the appealed claims under 35 U.S.C. § 103 over the applied prior art references.

*REVERSED*

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
CHUNG K. PAK	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
	)	INTERFERENCES
	)	
	)	
CHARLES F. WARREN	)	
Administrative Patent Judge	)	

CKP:hh

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