

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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

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Appeal No. 97-0047  
Application 08/299,398<sup>1</sup>

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ON BRIEF

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Before MEISTER, STAAB and McQUADE, **Administrative Patent Judges**.

MEISTER, **Administrative Patent Judge**.

**DECISION ON APPEAL**

This is an appeal from the final rejection of claims 1 and 3-20, the only claims remaining in the application.<sup>2</sup> We reverse.

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<sup>1</sup> Application for patent filed September 1, 1994.

<sup>2</sup> Claims 1, 9 and 14-16 have been amended subsequent to final rejection.

Appeal No. 97-0047  
Application 08/299,398

The appellant's invention pertains to an apparatus for activating photoactive agents contained in a product such as blood or a blood component. Independent claim 1 is further illustrative of the appealed subject matter and reads as follows:

1. A device for irradiating a product with light of a specific wavelength, the device comprising:

a source of radiation including a plurality of light emitting diodes, the light emitting diodes including a body portion through which radiation is transmitted, the body portion surrounded by a fluid;

a first housing enclosing the light emitting diodes and the fluid thereof, the first housing including a transparent window on an exterior wall of the first housing allowing radiation to flow through the transparent window and to irradiate the product in juxtaposition to the transparent window of the first housing; and

a body defining an interior that supports the first housing wherein an opening in the body allows the product to be placed in juxtaposition to the transparent window of the first housing removed from the body.

The references relied on by the examiner are:

Miripol et al. (Miripol)	4,866,282	Sept. 12, 1989
Judy et al. (Judy)	4,878,891	Nov. 7, 1989
Wolf, Jr. et al. (Wolf)	5,290,221	Mar. 1, 1994
Hed	5,301,090	Apr. 5, 1994

Claims 1 and 3-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Judy in view of Wolf, Hed and Miripol. According to the examiner it would have been obvious to utilize photodiodes as a radiation source in the device of Judy in view of the teachings Wolf and to provide the device of Judy, as

Appeal No. 97-0047  
Application 08/299,398

modified by Wolf, with the general housing structure depicted by Miripol in Fig. 1. The examiner is also of the opinion that it would have further been obvious to cool the photodiodes in the modified device of Judy with the cooling system of Hed.

We will not sustain this rejection. The independent claims on appeal require a body (claim 1) or a housing (claims 9 and 14) for receiving a container or product to be irradiated. In addition, claim 1 further requires (1) a source of radiation including a plurality of light emitting diodes with body portions surrounded by a fluid and (2) the diodes and fluid be enclosed in a housing having a transparent window. Independent claims 9 and 14 further require at least one photodiode device that includes a body having a transparent window which body defines a chamber that includes a plurality photodiodes and a fluid for cooling the photodiodes. We find nothing in the combined teachings of the relied on prior art which would suggest such arrangements.

Judy conceptually teaches a system for irradiating a product, but discloses little in the way of specific structure. The most detailed structure appears in Figs. 7 and 8 wherein the

product 30 is illustrated as being disposed between two transparent platens with cooling passages 64 therein (Fig. 7). Tubular lamps 83 are schematically shown to be the radiation source (Fig. 8) and are arranged in spaced-apart relationship to the platens. Wolf teaches that a product may be irradiated by utilizing either a tubular incandescent bulb (the embodiment of Figs. 1-5) or photodiodes (the embodiments of Figs. 6-9 and Figs. 10-13). While the tubular incandescent bulb in the embodiment of Figs. 1-5 of Wolf is enclosed in a chamber with a cooling fluid, the embodiments utilizing the photodiodes do not use a cooling fluid and are not enclosed or included in either a housing or chamber having a transparent window. Miripol broadly teaches an irradiating device having a body or housing 18 for receiving a product or bag 10 to be irradiated. Although Miripol states that the product or bag 10 "may be squeezed with a U.V. transparent plate" (column 4, lines 65 and 66), there is no teaching of a housing or chamber having a transparent window as set forth in the claims on appeal.

We agree with the examiner that, as a broad proposition, it would have been obvious in the embodiment of Figs. 7 and 8 of

Appeal No. 97-0047  
Application 08/299,398

Judy to (1) utilize photodiodes as a radiation source in view of the teachings of Wolf and (2) provide the modified device of Judy with a body or housing such as that illustrated by Miripol in Fig. 1. There is, however, nothing in the combined disclosures of Judy, Wolf and Miripol which would fairly suggest an arrangement wherein photodiodes and a fluid are enclosed or included in either a housing or chamber having a transparent window.

Apparently recognizing this deficiency, the examiner has additionally relied on the teachings of Hed. Hed, while broadly teaching photodiodes and a fluid that are enclosed or included in either a housing or chamber having a transparent window, is directed to an entirely different type of apparatus. That is, Hed is directed to a light or luminaire wherein (1) the outputs of light emitters of different colors are controlled in such a manner so as to achieve a desired color balance and intensity and (2) the diffuser

Appeal No. 97-0047  
Application 08/299,398

can form a wall of a space to be illuminated, for example, the wall of a room, of a bathing facility or of a treatment facility for modifying the circadian rhythm, or a wall of a bathing device such as a shower or bath enclosure, swimming pool or the like. [Column 3, lines 58-62.]

Absent the appellant's own disclosure we are at a loss to understand why one having ordinary skill in this art would have been motivated to seek out the feature of enclosing photodiodes and a fluid in a housing or chamber having a transparent window from the disparate teachings of Hed and incorporate it into the irradiation device of Judy, as modified by Wolf and Miripol. While the examiner has stated that the incorporation of Hed's cooling system into the modified device of Judy would prevent overheating of the photodiodes (and hence the blood being irradiated), we must point out that the mere fact that such a result would occur does not serve as a proper motivation or suggestion to combine the teachings of the references. Instead, it is the teachings of the prior art which must provide the

Appeal No. 97-0047  
Application 08/299,398

motivation or suggestion to combine the references. **See In re Fritch**, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). Here, we find no such suggestion.

The decision of the examiner is reversed.

**REVERSED**

JAMES M. MEISTER	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
LAWRENCE STAAB	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS
	)	AND
	)	INTERFERENCES
	)	
JOHN P. McQUADE	)	
Administrative Patent Judge	)	
	)	

Appeal No. 97-0047  
Application 08/299,398

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