

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

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| (90/002,818) | Paper No. 58 |
| (90/003,481) | Paper No. 42 |
| (90/003,888) | Paper No. 33 |

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte INTERNATIONAL RECTIFIER CORP.

Appeal Nos. 98-0617, 98-0857 and 98-0858
Reexamination Nos. 90/002,818¹; 90/003,481² and 90/003,888³

¹ Reexamination proceeding filed August 24, 1992. According to the appellant, this application is a reexamination of 06/471,818, filed March 3, 1983, now U.S. Patent 4,642,666 issued February 10, 1987; and a division of Application 06/232,713, filed February 9, 1981, now U.S. Patent 4,376,286; and a continuation of Application 05/951,310, filed October 13, 1978, now abandoned.

² Reexamination proceeding filed June 29, 1994. According to the appellant, this application is a reexamination of 06/471,818, filed March 3, 1983, now U.S. Patent 4,642,666 issued February 10, 1987; and a division of Application 06/232,713, filed February 9, 1981, now U.S. Patent 4,376,286; and a continuation of Application 05/951,310, filed October

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ON BRIEF

Before JERRY SMITH, FLEMING and LEE, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeals under 35 U.S.C. § 134 from the examiner's rejection of claims 1-3 and 6-12 in three merged reexamination proceedings involving U. S. Patent No. 4,642,666 issued to Lidow et al. (Lidow '666). Claim 1 of the patent has been amended and claims 11 and 12 were added during the course of the reexamination proceedings. Claims 4 and 5 have been confirmed by the examiner.

13, 1978, now abandoned.

³ Reexamination proceeding filed July 20, 1995. According to the appellant, this application is a reexamination of 06/471,818, filed March 3, 1983, now U.S. Patent 4,642,666 issued February 10, 1987; and a division of Application 06/232,713, filed February 9, 1981, now U.S. Patent 4,376,286; and a continuation of Application 05/951,310, filed October 13, 1978, now abandoned.

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The first reexamination request was filed by third party requester SGS-Thomson Microelectronics, Inc. (SGS) on August 24, 1992 and was assigned control number 90/002,818. This request for reexamination was granted on November 13, 1992 [Paper #5]. A second request for reexamination of Lidow '666 was filed by SGS on June 29, 1994 and was assigned control number 90/003,481. This request for reexamination was granted on September 12, 1994 ['481 proceeding, Paper #6]. A request to merge these two reexamination proceedings was granted on November 23, 1994 ['818, #24 and '481, #7]. A third request for reexamination of Lidow '666 was filed by SGS on July 20, 1995 and was assigned control number 90/003,888. This request for reexamination was granted on September 21, 1995 ['888, #5]. A request to merge all three reexamination proceedings was granted on October 31, 1995 ['818, #31, '481, #15 and '888, #7]. Thus, this decision constitutes a decision which is common to all three of the reexamination proceedings.

The invention pertains to a three-terminal power metal oxide silicon field effect transistor device.

Representative claim 1 is reproduced as follows:

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1. A three-terminal power metal oxide silicon field effect transistor device comprising:

a wafer of semiconductor material having first and second opposing semiconductor surfaces; said wafer of semiconductor material having a relatively lightly doped major body portion for receiving junctions and being doped with impurities of one conductivity type;

at least first and second spaced base regions of the opposite conductivity type to said one conductivity type formed in said wafer and extending from said first semiconductor surface to a depth beneath said first semiconductor surface; the space between said at least first and second base regions defining a vertical common conduction region of one conductivity type at a given first semiconductor surface location;

first and second source regions of said one conductivity type formed in each pair of said at least first and second base regions respectively at first and second first surface locations and extending from said first and second first surface locations to a depth less than said depth of said base regions; said first and second source regions being laterally spaced along said first semiconductor surface from the facing respective edges of said common conduction region thereby to define first and second channel regions along said first semiconductor surface between each pair of said first and second source regions, respectively and said common conduction region; the concentration of carriers of said one conductivity type in said common conduction region at said first semiconductor surface being less than the concentration of carriers of said opposite conductivity type of said first and second base regions at said first semiconductor surface;

source electrode means connected to said source regions and comprising a first terminal;

gate insulation layer means on said first surface, disposed at least on said first and second channel regions;

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gate electrode means on said gate insulation layer means, overlying said first and second channel regions and comprising a second terminal;

a drain conductive region remote from said common region and separated therefrom by said relatively lightly doped major body portion;

a drain electrode coupled to said drain conductive region and comprising a third terminal;

each of said at least first and second spaced base regions of said opposite conductivity type having respective profiles which include, to allow the device to withstand relatively high breakdown voltages, relatively shallow depth regions having a relatively small radius of curvature extending from said common region and underlying their said respective first and second source regions, and respective relatively deep, relatively large radius regions extending from said shallow depth regions which are laterally spaced from beneath said respective source regions on the side of said source regions which is away from said common region.

The examiner relies on the following references:

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| Joy et al. (Joy) | 4,028,717 | June 07, 1977 |
| Ishitani | 4,072,975 | Feb. 07, 1978 |
| Jambotkar | 4,145,700 | Mar. 20, 1979 |
| | | (filed Aug. 08, |
| 1977) | | |
| Hendrickson | 4,148,047 | Apr. 03, 1979 |
| | | (filed Jan. 16, |
| 1978) | | |
| Tihanyi et al. (Tihanyi) | 4,190,850 | Feb. 26, 1980 |
| | | (filed Jan. 17, |
| 1978) | | |
| Lidow et al. (Lidow '286) | 4,376,286 | Mar. 08, 1983 |
| Yoshida | 51-85381 | July 26, 1976 |
| (Japanese application) | | |

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| Takakuwa (Japanese Kokai) | 51-134076 | Nov. 20, 1976 |
| Sakai (Japanese application) | 52-106688 | Sep. 07, 1977 |

Henry F. Gray et al. (Gray), "Sleep and AES Applied to Solid State Devices and Materials," IEDM 74 Technical Digest (December 1974), pages 561-564.

Isao Yoshida et al. (Yoshida), "A High Power MOSFET with a Vertical Drain Electrode and a Meshed Gate Structure," IEEE Journal of Solid-State Circuits, Vol. SC-11, No. 4 (August 1976), pages 472-477.

Michael D. Pocha et al. (Pocha), "A Computer-Aided Design Model for High-Voltage Double Diffused MOS (DMOS) Transistors," IEEE Journal of Solid State Circuits, Vol. SC-11, No. 5 (October 1976), pages 718-726.

James Sansbury, "Applications of Ion Implantation in Semiconductor Processing," Solid State Technology, November 1976, pages 31-37.

S. R. Combs et al. (Combs), "Characterization and Modeling of Simultaneously Fabricated DMOS and VMOS Transistors," IEDM 76 Technical Digest (December 1976), pages 569-572.

James D. Plummer et al. (Plummer), "A Monolithic 200-V CMOS Analog Switch," IEEE Journal of Solid State Circuits, Vol. SC-11, No. 6 (December 1976), pages 809-817.

Surinder Krishna, "Second Breakdown in High Voltage MOS Transistors," Solid State Electronics, Vol. 20 (1977), pages 875-878.

Brad W. Scharf et al. (Scharf), "A MOS-Controlled Triac Device," 1978 IEEE International Solid-State Circuits Conference, Digest of Technical Papers (February 1978), pages 222-223.

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Kenneth P. Lisiak et al. (Lisiak), "Optimization of Nonplanar Power MOS Transistors," IEEE Transactions on Electron Devices, Vol. ED-25, No. 10 (October 1978), pages 1229-1234.

S. M. Sze, Semiconductor Devices Physics and Technology, John Wiley & Sons, New York (1985), pages 401-402.

Claims 1-3 and 6-12 stand rejected under 35 U.S.C. § 103. As evidence of obviousness the examiner offers the collective teachings of all the references cited above. Claims 1-3 and 6-12 also stand rejected on the basis of obviousness-type double patenting as being unpatentable over corresponding claims of Lidow '286 and either Jambotkar and Sze or Jambotkar, Sze, Yoshida, Gray, Sansburg, Joy and Combs.

Rather than repeat the arguments of appellant or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellant's arguments set forth in the briefs along with the examiner's

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rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the collective evidence relied upon would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 1-3 and 6-12. We are also of the view that the invention as recited in claims 1-3 and 6-12 is properly rejected on the ground of obviousness-type double patenting. Accordingly, we affirm.

We consider first the rejection of claims 1-3 and 6-12 under 35 U.S.C. § 103. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication

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in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

This appeal comes before us with a voluminous record of prior art references and other papers filed by the parties. The evidence of record in this appeal includes not only the prosecution of record in the three reexamination proceedings, but also includes declarations submitted by requester SGS and papers filed by appellant which come from other litigations involving the subject matter of these appeals. Specifically, the claims of Lidow '666 were previously before this Board during the prosecution of the application which became that

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patent. Additionally, appellant and SGS have been involved in civil litigation regarding the validity of Lidow '666 and the alleged infringement thereof by requester SGS. These other litigations have resulted in papers which have been filed in this merged reexamination proceeding by appellant in support of the patentability of the claims now on appeal and by requester in support of the unpatentability of these claims.

The examiner's statement of the rejection in the answer notes that claims 1-3 and 6-12 are rejected under 35 U.S.C. § 103 based on all the prior art cited above "as further explained in the Blanchard Declaration executed 22 April 1995" [answer, page 4]. The Blanchard Declaration is a declaration on behalf of requester SGS filed by SGS in support of its request to have the claims of this reexamination proceeding declared unpatentable. In this declaration Dr. Blanchard offers several opinions as to what would have been known to the artisan practicing in this art in 1978 and what would have been obvious to such artisan based upon the teachings of the references cited above. To the extent that the examiner has relied on and cited this declaration as evidence of what would have been obvious to the artisan in

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view of the applied prior art, such reliance was clearly improper.

Prosecution before the Patent and Trademark Office (PTO) is designed to be an ex parte prosecution. This means that the participation by third parties in the prosecution of a reexamination proceeding is limited to bringing prior art to the attention of the PTO and offering a view as to why the claims are not patentable. Opinions of third parties do not constitute "evidence" on which the patentee's claims may be found unpatentable. Reexamination is not an inter partes proceeding wherein the patentee would have an opportunity to cross-examine the declaration testimony of persons like Dr. Blanchard. Nor does the examiner have an opportunity to view the demeanor of third party witnesses. Reexamination is ex parte in nature and the PTO is in no position to receive or regard third party declaration testimony as established facts or evidence of obviousness, especially when the patentee or applicant for patent has a different opinion as to the facts.

Notwithstanding the improper reliance on the Blanchard Declaration as evidence of what is suggested by the prior art in this case, we agree that the examiner is certainly

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permitted to reach the exact same conclusions as Dr. Blanchard did. The examiner's conclusions, however, must be based on the clear teachings of the applied prior art and not on what Dr. Blanchard believes. In other words, if the applied prior art clearly supports Dr. Blanchard's opinions and conclusions, then the examiner is free to make findings and conclusions consistent with Dr. Blanchard's opinions. However, if the examiner is relying on Dr. Blanchard's opinions as bridging the obviousness gap between what is taught by the applied prior art and what is specifically claimed, then such reliance is improper.

Our view of the rejection is that it is not based only on the clear teachings of the references. The rejection appears to be a complicated effort to throw various bits and pieces together and to rely on a general premise proposed by Dr. Blanchard that the person skilled in this art could have made the invention. The rejection basically takes the position that any feature in one type of semiconductor device was automatically applicable to a different type of semiconductor device in 1978. Thus, the examiner combines teachings from different types of semiconductor structures

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with the only rationale being that the artisan would have recognized the obviousness of mixing these teachings.

Although we do not doubt that the artisan provided with the invention on appeal could have fabricated such a device in 1978, we do not see where the references relied on suggest all the features of the claimed invention and the motivation to combine the references as proposed by Dr. Blanchard and accepted by the examiner. We have a strong sense that the artisan, even if provided with all the applied prior art, would not have come up with the claimed invention in 1978 without the advance knowledge of what was invented here. In other words, the rejection appears to us to be analogous to putting together a jigsaw puzzle when given all the individual pieces and an indication of what the final puzzle looks like. The labored and complicated combination of the references proposed by Dr. Blanchard and the examiner does not appear to be based only on the teachings of the applied references.

The prosecution of these merged reexamination proceedings suggests that the fact situation is complicated and compelling arguments can be made on both sides of the issue. This is evidenced by the fact that the examiner has

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continually made rejections and withdrawn them in response to arguments made by appellant and the requester. Thus, the examiner has made various rejections during the course of reexamination, has withdrawn most of these rejections in response to arguments made by appellant, and then reapplied the same rejections or new rejections in response to arguments made by SGS in its various requests for reexamination of Lidow '666. Thus, it would seem that the examiner has found credibility in the arguments of both the appellant and the requester during the course of prosecution here.

Notwithstanding any of the above comments, it appears that the rejection has never really addressed the limitations of claim 1 as amended in these reexamination proceedings. The amendments to claim 1 presumably were made to patentably distinguish the claims of Lidow '666 from the combination of references cited by requester SGS and applied by the examiner. These amendments included a recitation of the relationship between carrier concentrations in the conduction region and the base regions and the profiles of the base regions designed to allow the device to withstand relatively high breakdown voltages. The rejection, however, has remained focused on the

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unpatentability of original claim 1 rather than on the claim currently before us.

The examiner only addresses the concentration limitation briefly by asserting that such a relationship of carrier concentrations would inherently be present in any of Jambotkar, Takakuwa, Krishna and Hendrickson [answer, page 12]. None of the applied prior art specifically supports the inherency of this relationship, and we are unable to verify this position of the examiner. We are not inclined to permit the examiner to simply conclude that a claimed feature is present in the prior art when the prior art is being contested by appellant. With respect to the claimed breakdown voltages, the examiner basically takes the position that this claimed function must inherently be carried out by the prior art transistors because they appear to have similarly shaped base regions. The examiner dismisses the radius of curvature limitation added to claim 1 of Lidow '666 by citing the Sze textbook which was published long after the date of invention here [answer, page 12]. Sze describes how diffusion can take place under different circumstances but does not teach that devices in 1978 must have inherently had the properties

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recited in amended claim 1. We do not find that Sze can be relied on to support the position of inherency argued by the examiner.

The only patents which deal with the dual base region feature of the claimed invention are Ishitani, Sakai, Tihanyi, Plummer, Scharf and Pocha. The rejection suggests that Ishitani teaches this aspect of the claimed invention as corroborated by the other five references [answer, page 4]. Ishitani was applied against the claims in the original prosecution of Lidow '666 which resulted in an appeal to this Board. The Board determined in that appeal that Ishitani did not suggest the claimed relationship of the first and second base regions of original claim 1. Amended claim 1 before us is even narrower than original claim 1 so that Ishitani still does not suggest the specific features of the first and second base regions. Therefore, references which "corroborate" the teachings of Ishitani provide no help to the rejection.

We recognize that each of Sakai, Tihanyi, Plummer, Scharf and Pocha shows a dual base region in a semiconductor device which has an appearance that is similar to the dual base region shown in Figure 2 of Lidow '666. Sakai shows a

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device having dual base regions in Figures 6 and 7. There is no description in Sakai that suggests that the Sakai device meets the carrier concentration limitations of claim 1 or the radius of curvature and the voltage breakdown profile limitations of claim 1. We will not simply speculate on this point as the examiner apparently has. The dual base regions shown in Tihanyi, Plummer, Scharf and Pocha have an appearance similar to the Sakai dual base region, but each of these references also fails to provide any information which would enable one to deduce that the limitations of amended claim 1 are suggested by any or all of these references. We are not prepared to find obviousness based primarily on the speculation of the examiner when that speculation has been challenged by appellant.

In summary, we have determined that there is no motivation within the applied references for combining their teachings in the manner proposed by the examiner absent a need to reconstruct the claimed invention in hindsight. We have also determined that none of the applied prior art suggests the specific details of amended claim 1 concerning the carrier concentrations and the base region profiles for allowing a

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device to withstand relatively high breakdown voltages. The rejection on this record is based on speculation and "facts" [the Blanchard Declaration] which were improperly considered in this case. Accordingly, the rejection of claims 1-3 and 6-12 under 35 U.S.C. § 103 is not sustained.

Since we have determined that the record in this case does not support the rejection of the claims under 35 U.S.C. § 103, we need not address the issue of whether appellant's evidence of secondary considerations would have been sufficient to overcome the rejection on obviousness.

We now consider the rejections of the claims on the ground of obviousness-type double patenting. The examiner has made two rejections on this ground depending on whether one-way obviousness or two-way obviousness is necessary in view of the decisions in In re Braat, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991) and In re Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993). If one-way obviousness is sufficient, the examiner rejects claims 1-3, 6, 7 and 9-12 as unpatentable over claim 18 of Lidow '286 in view of Jambotkar and Sze and rejects claim 8 on the same basis in view of claim 19 of Lidow '286. If two-way obviousness is required, the examiner

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rejects claims 1-3, 6, 7 and 9-12 as unpatentable over claim 18 of Lidow '286 in view of Jambotkar and Sze, and further in view of Yoshida, Gray, Sansbury, Joy and Combs. Claim 8 is rejected on the same basis based on claim 19 of Lidow '286.

Appellant argues that the double patenting rejection is improperly made citing the decisions in In re Portola Packaging, Inc., 110 F.3d 786, 42 USPQ2d 1295 (Fed. Cir. 1997) and In re Recreative Technologies Corp., 83 F.3d 1394, 38 USPQ2d 1776 (Fed. Cir. 1996). Portola and Recreative Technologies basically stand for the proposition that an issue considered during the prosecution leading to a patent cannot be the sole basis for a reexamination of the patent. These decisions would be more relevant here if a double patenting rejection had been made and overcome during prosecution of the Lidow '666 patent. There is no evidence, however, in the file of Lidow '666 that the examiner ever considered the propriety of a double patenting rejection. The examiner rejected the claims of Lidow '666 on prior art and may have felt that a double patenting rejection was unnecessary and would look silly because the claims were not considered patentable in any case. It is clear in our view, however, that a double

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patenting rejection of the claims of Lidow '666 could have been made on the claims of the Lidow '286 patent during the original prosecution of the application leading to Lidow '666. Thus, the question on this record is whether a double patenting rejection can be maintained here when it was not made during the original prosecution but could have been.

The issue of double patenting in this case also differs in a very material respect from the facts in Portola and Recreative Technologies. Those cases held that a reexamination request could not be granted or maintained when the only issue being disputed is one that was argued (or could have been argued) during the prosecution of the original patent. Thus, the court decided that the statute did not permit a reexamination for the sole purpose of reconsidering an issue previously argued. In this case, however, the reexamination request was granted in order to consider additional prior art cited by requester SGS, and this prior art was applied in the rejection previously discussed under 35 U.S.C. § 103. Therefore, the reexamination proceeding here was properly undertaken whether or not the double patenting rejection had been made. The question is whether an issue

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which could have been raised in the original patent but was not raised can be raised during a reexamination proceeding which has been granted on other appropriate grounds.

As we noted above, this issue is affected by the course of prosecution of the original patent. Our review of the parent file, however, leads us to infer that it is quite likely that the examiner made no double patenting rejection because the examiner believed the claims were unpatentable over the Ishitani reference. This rejection went to the Board on appeal and the prior art rejection was reversed. By the time the parent case was returned to the examiner after the Board decision, almost two years had gone by since the case had last been considered by the examiner. The examiner's response to the Board decision was to note that the case was allowed in view of the Board decision. It appears to us that the examiner simply responded mechanically to the Board reversal and did not remember that there was a related patent which had previously issued. Under these facts, we think it was appropriate for the examiner to raise the double patenting issue for the first time during this reexamination proceeding since the proceeding was properly granted based on new prior

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art which was applied in a separate rejection. If the examiner clearly overlooked an appropriate rejection in the parent prosecution, it would make no sense to us to preclude the examiner from properly raising it in a reexamination proceeding which would have been a proper proceeding if the rejection were not made. Thus, on the particular facts of this case, we hold that the examiner is not precluded by Portola and Recreative Technologies from making a double patenting rejection for the first time in addition to a new rejection on prior art.

Since we have decided that the double patenting rejection may be considered as part of this reexamination proceeding, we must now consider whether the test for two-way obviousness must be met or whether one-way obviousness is sufficient. It should be noted that Lidow '286 was the subject of a reexamination proceeding and a reexamination certificate was issued on July 20, 1993 [B1 4,376,286]. The reexamination certificate contained an amendment to claim 1 which is the exact same addition made to claim 1 in this proceeding regarding the concentration of carriers limitation. Claim 1 on appeal differs from claim 18 of Lidow '286

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primarily in that the last clause of claim 1 of Lidow '286 has been eliminated to obtain claim 1 which is now before us. Thus, claim 1 on appeal now is broader than claim 18 which issued in Lidow '286.

Lidow '666 was filed by appellant as a voluntary divisional of Lidow '286. The claims first presented in Lidow '666 were substantially different from the claims now before us. After a rejection of the original claims was made in Lidow '666, the claims were cancelled and replaced by the claims which are essentially now before us. Thus, appellant took the narrower claims of the '286 patent and voluntarily filed the broader claims which are now before us. No attempt was made to prosecute these broader claims in the parent application. Thus, appellant has essentially controlled the prosecution so that the narrower invention has issued before the broader invention.

The differences between the application of one-way obviousness determinations and two-way obviousness determinations have been clarified by the courts as recognized by the examiner and appellant. In Braat, the court held that a two-way obviousness determination must be satisfied in the

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situation where an applicant is not at fault that narrower claims may have issued before broader ones. On the record now before us, however, appellant elected to take the patent on the narrower claims of Lidow '286 and to continue prosecution on the broader claims in the patent which is now being reexamined. Thus, the facts of this case are distinguishable from Braat. Indeed, these facts are very similar to the facts of Goodman. In Goodman as in this case, appellant chose to accept narrower claims and to file a continuing application on broader claims. The court held that the two-way obviousness determination was not required under these facts. The court indicated that this would improperly extend the term limit mandated by Congress. The court also noted that "[a] second application -- 'containing a broader claim, more generic in its character than the specific claim in the prior patent' -- typically cannot support an independent valid patent," Id. 11 F.3d at 1053, 29 USPQ2d at 2016, citing Miller v. Eagle Mfg. Co., 151 U.S. 186, 198 (1894). Thus, the court in Goodman decided that under facts similar to the facts of this case, one-way obviousness is sufficient and generically broader claims are generally obvious over their more narrow

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counterparts. See also In re Berg, ___ F.3d ___, 46 USPQ2d 1226 (Fed. Cir. 1998) on two-way versus one-way obviousness.

Appellant admits that claim 18 of Lidow '286 is narrower than claim 1 on appeal, but argues that there would be no improper extension of the term of the '286 patent because that patent required the additional limitation relating to the deep enhanced conductivity region [brief, page 41]. We do not agree with appellant because appellant appears to have missed the point. The invention of claim 18 of Lidow '286 would continue to infringe claim 1 of Lidow '666 after Lidow '286 expires. Therefore, even though a patent to the invention of Lidow '286 would no longer be in effect, the public would still not have access to that invention because it would necessarily continue to infringe the later granted '666 patent. This would represent an improper extension of the '286 patent.

Appellant argues that the additional teachings of Jambotkar and Yoshida do not render the deep enhanced conductivity region of Lidow '286 obvious. Since the obviousness of Lidow '286 would only be relevant in a case

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where two-way obviousness is required, we do not consider the merits of this argument. The only question is whether the broader invention of claim 1 on appeal would have been obvious to the artisan over claim 18 of Lidow '286 in view of Jambotkar and Sze. As we noted above, the court in Goodman indicated that generically broader claims are typically obvious over their more narrow counterparts. We see no reason why that general rule should not apply here. Once the invention of claim 18 of Lidow '286 was patented, the artisan would have found it obvious to simply remove recitations directed to the doping concentrations to obtain broader coverage of the invention. Thus, using one-way obviousness as the correct standard, we conclude that claim 1 on appeal before us, which is basically a broader version of claim 18 of Lidow '286, would have been obvious over claim 18 of Lidow '286. The examiner's reliance on the teachings of Jambotkar and Sze (which is not a valid prior art reference) is considered unnecessary to support the one-way obviousness of claim 1 over claim 18 of Lidow '286. Since appellant has not separately argued the other claims subject to the double patenting rejection, we conclude that claims 1-3 and 6-12

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would have been obvious over either claim 18 or claim 19 of
Lidow '286.

In conclusion, we have not sustained the examiner's
rejection of claims 1-3 and 6-12 under 35 U.S.C. § 103 based
on the record before us. We have sustained the examiner's
rejection of claims 1-3 and 6-12 on the ground of obvious-type
double patenting. As pointed out by the examiner, this
rejection can be overcome by the filing of a terminal
disclaimer. The decision of the examiner rejecting claims 1-3
and 6-12 is affirmed.

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

AFFIRMED

JERRY SMITH)
Administrative Patent Judge)
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