

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte MASAKAZU MESAKI

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Appeal No. 2005-0235  
Application No. 09/969,291

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HEARD: February 22, 2005

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Before PAK, TIMM, and DELMENDO 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 11 which are all of the claims pending in the above-identified application.

APPEALED SUBJECT MATTER

At page 3 of the Brief under the heading "Grouping of Claims," appellant states that:

For purposes of this appeal only, all the claims stand or fall together with respect to the obviousness rejection currently being asserted by the Examiner.

Therefore, for purposes of this appeal, we select claim 1 from all the claims on appeal and decide the propriety of the examiner's rejection based on this claim alone consistent with 37 CFR § 1.192(c)(7) (2003), now 37 CFR § 41.37 (c)(1)(vii)(2004). See also *In re McDaniel*, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) ("If the brief fails to meet either requirement [of 37 CFR § 1.192(c)(7)(2003), now 37 CFR § 41.37 (c)(1)(vii)(2004)] the Board is free to select a single claim from each group of claims subject to a common ground of rejection as representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim.").

Representative claim 1 is reproduced below:

1. A multilayer insulation-coated electric conductor comprising a conductor with a plurality of layers of insulation-coating provided thereon and configured in a shape so as to form one portion of a coil and having ends adapted to attach to other electric conductors with welded joints so as to form a further extended coil section, wherein at least one layer of the plurality of layers of the coated metal conductor is composed of at least one resin selected from the group consisting of a polyimide resin, a polyesterimide resin, and an H-class polyester resin.

PRIOR ART

The examiner relies on the following prior art references:

Tatematsu et al. (Tatematsu)	5,965,263	Oct. 12, 1999
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The appellant's admission at pages 2 through 4 of the specification (hereinafter referred to as "admitted prior art").

### REJECTION

Claims 1 through 11 stand rejected under 35 U.S.C. § 103 as unpatentable over the combined teachings of the admitted prior art and Tatematsu.

### OPINION

We have carefully reviewed the claims, specification and prior art, including all of the arguments advanced by both the examiner and the appellant in support of their respective positions. This review has led us to conclude that the examiner's Section 103 rejection is well founded. Accordingly, we affirm the examiner's Section 103 rejection for the factual findings and conclusions set forth in the Answer and below.

Under 35 U.S.C. § 103, to establish a *prima facie* case of obviousness, there must be some objective teachings or suggestions in the prior art and/or knowledge generally available to a person having ordinary skill in the art that would have led such person to arrive at the claimed subject matter. *See generally In re Oetiker*, 977 F.2d 1443, 1447-48, 245 USPQ2d 1443, 1446-47 (fed. Cir. 1992)(*Nies, J., concurring*); *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991). The knowledge generally available to a person having ordinary skill in the art can be imputed from the appellant's admission regarding what was known in the art at the time of the invention. *In re Nomiya*, 509 F.2d 566, 570-71, 184 USPQ 607, 611-12 (CCPA 1975)(the admitted prior art in an applicant's specification may be used in determining the patentability of a claimed invention); *in accord In re Davis*, 305 F.2d 501, 503, 134 USPQ 256, 258 (CCPA 1962).

The initial inquiry into determining the propriety of the examiner's obviousness rejection is to correctly construe the scope of the claimed subject matter. See *Gechter v. Davidson*, 116 F.3d 1454, 1460 n.3, 43 USPQ2d 1030, 1035 n.3 (Fed. Cir. 1997); *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1674 (Fed. cir. 1994). In proceeding before the U.S. Patent and Trademark Office (PTO), we give the words in claims the broadest reasonable meaning in their ordinary usage, taking into account the written description found in the specification. See *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997)("[T]he PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification."); *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow.").

With the above broadest reasonable interpretation in mind, we turn to claim 1 which is representative of the claims on appeal. The subject matter defined by claim 1 is directed to "[a] multilayer insulation-coated electric conductor" which can be used in a variety of electric machinery and tools, such as motors and generators. See claim 1, together with page 1 of the specification. This multilayer insulation-coated electric conductor, according to claim 1, comprises "a conductor with a plurality of layers of insulation-

coating...configured in a shape so as to form one portion of a coil and having ends adapted to attach to other electric conductors with welded joints so as to form a further extended coil section..." At least one insulation layer of the claimed multilayer insulation-coated electric conductor "is composed of at least one resin selected from the group consisting of a polyimide resin, a polyesterimide resin, and an H-class polyester resin." See claim 1. The claimed polyimide resin, according to page 7 of the specification, "is not particularly restricted, and ...can be made of the well-known polyimide resins, such as aromatic polyimides..."

The appellant acknowledges that a polyamideimide resin insulation-coated electric conductor "configured in a shape so as to form one portion of a coil and having ends adapted to attach to other electric conductors with welded joints so as to form a further extended coil section" is well known. See the specification, pages 2-4. According to the appellant (specification, pages 1-3), this electric conductor is known to be useful for a variety of electric machinery and tools, such as motors and generators. However, the appellant does not admit that this conventional electric conductor employs a plurality of insulation layers with at least one of the layers being made of "a polyimide resin, a polyesterimide resin and/or an H-class polyester resin." See the specification, pages 1-4.

The dispositive question is, therefore, whether one of ordinary skill in the art would have been motivated to employ a multi-layer insulation with at least one layer being made

of, for example, a polyimide resin, as the insulation for the admittedly known electric conductor. On this record, we answer this question in the affirmative.

As acknowledged by the appellant (specification, page 4), a polyamideimide insulation coating was conventionally used in the above-mentioned conventional electric conductor useful for, *inter alia*, coils of motors and generators. It was also well known that the welding heat used to connect this conventional electric conductor with other electric conductor adversely affects such insulation coating. See the specification, page 4.

Tatematsu, like the appellant, teaches that the above-mentioned polyamideimide resin coating was known to be used as an insulation layer of an electrical conductor useful for coils of motors and generators. See column 1, line 4 to column 2, line 6. Tatematsu teaches that to improve the heat resistance property of the polyamideimide insulation coating, the polyamideimide resin is modified with, e.g., trialkylamine. See column 2, lines 10-17. However, due to lack of certain desired mechanical properties in this modified polyamideimide resin coating insulation, Tatematsu teaches employing a plurality of insulation layers containing both polyamideimide resin and polyimide resin (aromatic polyimide) layers on a conventional electric conductor to improve the mechanical and heat shock resistance properties of the insulation coating. See column 2, lines 48-58. These insulation properties are further enhanced upon employing a multi-layer insulation coating made of modified polyamideimide resin and polyimide resin layers as an insulation coating for an electrical conductor. See column 2, line 58 to column 3, line 57.

Given the advantages of the multi-layer insulating coatings discussed above, we concur with the examiner that one of ordinary skill in the art would have been led to employ the claimed multi-layer insulation coatings described by Tatematsu as the insulation coating for a conventional electric conductor, such as an admittedly known electric conductor, motivated by a reasonable expectation of improving the heat resistance and mechanical properties of an insulation coating.

The appellant argues that Tatematsu is directed to improving the abrasion resistance property of an electric insulation coating, rather than to solving a thermal deterioration problem associated with an electrical conductor subjected to electrical welding. See the Brief, pages 5-6. We do not agree.

As indicated *supra*, Tatematsu as a whole clearly teaches that its multi-layer insulation coating not only improves abrasion resistance properties, but also improves heat resistance properties. Thus, Tatematsu, like the appellant, is also directed to solving a known problem associated with thermal deterioration of a conventional insulation coating.

Even if these heat resistance properties referred to in Tatematsu are not relevant to the heat resistance properties associated with an electric conductor subject to welding heat as alleged by the appellant, our conclusion would not be altered. The fact remains that the insulation (polyamideimide insulation coating) used for such electric conductor (subject to welding heat) can be made further heat resistant by employing the claimed multi-layer insulation coatings described in Tatematsu as indicated *supra*. This fact alone

would have motivated one of ordinary skill in the art to employ the claimed multi-layer insulation coatings described in *Tatematsu*, in lieu of the polyamideimide insulation coating, as an insulation for the admittedly known electric conductor discussed above, especially since the problem associated with the effect of welding heat on an insulation coating is well known. *In re Kemps*, 97 F.3d 1427, 1430, 40 USPQ2d 1309, 1311 (Fed. Cir. 1996)(The motivation to combine the prior art references need not be identical to that of the appellant.); *In re Beattie*, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992)(“As long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor.”).

Relying on *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), the appellant argues that *Tatematsu* is directed to an environment different from that of the admitted prior art and, therefore, cannot be properly combined with the admitted prior art. See the Brief, page 6. However, as indicated *supra*, both the admitted prior art and *Tatematsu* are directed to an insulation of an electrical conductor used in the same environment, e.g., a motor or a generator. As also indicated *supra*, *Tatematsu* teaches improving the properties of an insulation coating of an electrical conductor, including those relevant to the insulation coating of the admittedly known electric conductor. Thus, we determine that the appellant’s reliance on *Jones* is completely misplaced for the factual findings and conclusions set forth above.

Under the circumstances recounted above, we determine that the evidence of obviousness, on balance, outweighs the evidence of nonobviousness proffered by the appellant. Hence, we concur with the examiner that the claimed subject matter as a whole would have been obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103. Accordingly, we affirm the examiner's decision rejecting claims 1 through 11 under 35 U.S.C. § 103.

In view of the foregoing, the decision of the examiner 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

CHUNG K. PAK  
Administrative Patent Judge

CATHERINE TIMM  
Administrative Patent Judge

ROMULO H. DELMENDO  
Administrative Patent Judge

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