

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 184

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

EDWIN A. CHANDROSS, RAY L. HARTLESS, WARREN YIU-CHO LAI,
RONALD G. LARSON, GEORGE W. REUTLINGER, RONALD J. SCHUTZ,
LARRY E. STILLWAGON and GARY N. TAYLOR
Junior Party¹

v.

ANDREW V. BROWN
Senior Party²

Interference No. 102,814

HEARD: DECEMBER 4, 1997

¹ Application Serial Number 07/593,362, filed October 1, 1990. Accorded benefit of U.S. Serial Number 07/349,975, filed May 8, 1989, now abandoned and U.S. Serial Number 07/020,332, filed February 27, 1987, now abandoned. On this record, the involved application is assigned to Lucent Technologies, a Corporation of Delaware.

² Reissue Application Serial Number 08/090,447, filed July 8, 1993. Said Reissue Application is a reissue of U.S. Serial Number 06/697,363, filed February 1, 1985, now U.S. Patent Number 4,619,837, issued October 28, 1986. On this record, the involved reissue application is assigned to Advanced Micro Devices, Inc., a Corporation of Delaware.

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FINAL DECISION

Before CALVERT, METZ AND HANLON, Administrative Patent Judges.
METZ, Administrative Patent Judge.

In our decision mailed on April 19, 2000 (Paper Number 179), we afforded the senior party an opportunity to brief certain issues we found to be unresolved below and which issues the parties had not addressed in their briefs. The senior party was afforded twenty days from the date of the decision in which to file a brief responding to the issues we raised. The junior party was afforded ten days from the date of service of the senior party's brief to respond to the senior party's brief. The senior party requested (Paper Number 180), and was granted ten additional days in which to file his brief (Paper Number 181). Brown's brief was received on May 22, 2000 (Paper Number 182 - c.o.m. May 19, 2000). Accordingly, the junior party's reply brief was due on May 30, 2000 (May 29, 2000, was Memorial Day, a federal holiday). Chandross et al.'s reply brief was received on May 31, 2000 (Paper Number 183 - c.o.m. May 30, 2000).

We also acknowledge that the parties have recently filed two additional papers captioned, respectively, as: "SENIOR

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PARTY'S REBUTTAL TO JUNIOR PARTY'S REPLY" and "**OBJECTION TO THE SENIOR PARTY'S REBUTTAL TO JUNIOR PARTY'S REPLY**". We did not authorize the parties to file either of these papers in our briefing order from our prior decision. Accordingly, each of these unauthorized papers is returned with this opinion. 37 C.F.R. § 1.618. Neither paper has been considered in reaching our final decision.

OUR PRIOR DECISION

We incorporate herein the entirety of our prior decision (Paper Number 179) by reference thereto. Our decision on the issues which we required the parties to brief is set forth fully below.

In our prior decision, we explained why we considered the APJ's indication that certain reissue claims were allowable to be anomalous. Specifically, we found because Brown did not challenge the APJ's finding of unpatentability with respect to the original patent claims 1 through 14 nor with respect to reissue claims 1 through 13, 16 through 43, 46, 47 and 55, we held that:

because neither party has chosen to favor the record with any arguments concerning this issue they have conceded the correctness of the position taken by the APJ with respect to the original claims and the

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reissue claims held to be unpatentable.

Thus, the APJ's determination that certain reissue claims were allowable was at least inconsistent with his determination with respect to the patentability of the original claims and most of the reissue claims.

At pages 40 and 41 of our decision, we gave the senior party Brown explicit directions for briefing the issues to be addressed in his brief. Specifically, we explained that Brown's brief:

must address each affected reissue claim and make a claim-by-claim analysis of the "allowable" reissue claims *vis-à-vis* the McColgin et al. patent disclosure, the unpatentable original patent claims, Andrew V. Brown's declaration wherein he stated that "[a]romatic epoxy resins were well known in the art in 1984", the unpatentable reissue claims and the senior party's concession in his reissue declaration. (emphasis added)

This Brown has not done. Rather than brief the issues as we required, Brown has elected to argue that he never conceded that original patent claim 14 was unpatentable. Specifically, Brown has now argued that:

the Board's analysis is incorrect as it is based upon misconceptions about the APJ's findings and the prosecution history of the reissue application.

Additionally, Brown respectfully submits that:

the Board has misconstrued the record, as original

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claim 14 was indeed held patentable and Brown has never acquiesced to its unpatentability.

Based on Brown's failure to brief the issues in the manner which we required in our decision we could, on that basis alone, render our decision on those issues here. However, in an abundance of caution and for the sake of the completeness of the record, we shall address Brown's arguments as they are raised in his brief.

THE PROSECUTION OF BROWN'S REISSUE APPLICATION

Brown's reissue application (Serial Number 08/090,447) was filed on July 8, 1993, with an accompanying "Preliminary Amendment" filed on even date with the reissue application. The amendment included, *inter alia*, an amendment to original patent claim 1 and added new claims 16 through 56. On August 12, 1993, Brown filed a subsequent preliminary amendment (Paper Number 4) wherein reissue claims 14 and 18 were amended to "conform more accurately to the scope of the original patent claims." On October 12, 1993, Brown filed a paper captioned "Second Preliminary Amendment" (Paper Number 5), amending the specification by adding text to the disclosure, amending claims 1, 14, 17, 18, 32, 47 and 56, canceling claims 21 and 46 and adding new claim 57. On March 7, 1996, Brown

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filed a paper captioned "Third Preliminary Amendment" (Paper Number 10), deleting from the specification the disclosure added to the specification in the amendment filed on October 12, 1993.

Brown's reissue application included an original declaration under 37 C.F.R. § 1.175 but there are now three (3) reissue declarations in Brown's reissue application: (1) the original declaration filed on July 8, 1993; (2) a second declaration filed on January 19, 1994, listed as Paper Number 6 and captioned as a "Supplemental Declaration"; and, (3) Paper Number 9 filed on March 1, 1996, listed as the "Second Supplemental Declaration".

Chandross et al. raised the sufficiency of Brown's original reissue declaration in their opposition to Brown's motion to add his reissue application to this interference (see pages 10 and 11 of Paper Number 67, filed on July 29, 1993). According to Chandross et al.'s opposition, the original reissue declaration failed to set forth every departure from the original patent claims in every reissue claim and failed to adequately set forth

how the reissue claims corrected the error in the original

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patent. Because Chandross et al. believed Brown's reissue declaration was defective, they urged that the defective declaration rendered the reissue application "defective". In his decision mailed on September 21, 1993 (Paper Number 76), the APJ, while recognizing certain problems existed with respect to Brown's reissue declaration, granted Brown's motion:

to the extent that the reissue will be added to this interference and that reissue claims 1 to 14 and 16 to 55 will be designated as corresponding to the EIC's³ proposed count, *infra*.

The APJ also noted that he had:

reviewed the reissue claims in light of the parties' arguments and considers that claims 1 to 13, 16 to 43, 46, 47 and 56 are unpatentable.

In light of the APJ's perceived shortcomings in Brown's reissue declaration, the APJ provided Brown with an opportunity to file a new declaration. The APJ also noted that he considered reissue claims 1 and 18 and those claims dependent thereon to be unpatentable for failing to comply with 35 U.S.C. § 112, first paragraph (written description). The APJ also found that the reissue claims directed to "about

³APJ's were previously known as "examiners-in-chief". See 35 U.S.C. §§ 3 and 7 (1999).

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12% solvent" did not "patentably distinguish over the 12.8% solvent taught by McColgin." (page 5 of Paper Number 76).

At the time Paper Number 76 was mailed, Brown had already filed his second preliminary amendment in which claim 14 was amended to recite that application of the "epoxy material" was applied in the presence of "less than about 12% nonpolymerizable solvents". Thus, although not expressly included in the APJ's finding, the APJ's unchallenged finding concerning lack of a written description in the original disclosure for subject matter now claimed by Brown in reissue claims 1 and 18 equally applied to reissue claim 14, as amended. The APJ's determination that certain reissue claims were unpatentable was not challenged below or briefed for final hearing. Accordingly, we considered those claims to have been conceded as unpatentable.

In Paper Number 89 (mailed on December 21, 1993), the APJ, *inter alia*, denied Brown's belated motion (Paper Number 80) to amend certain reissue claims and add text to the specification of Brown's reissue application. Accordingly, the amendment filed on October 12, 1993 (Paper Number 5), with Brown's belated motion to amend has not been entered.

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Brown filed a new reissue declaration in the time provided by the APJ in Paper Number 76 and Chandross et al. made new objections to the new declaration (Paper Number 93, filed on February 16, 1994). In Paper Number 94, mailed on May 17, 1994, the APJ deferred consideration of the new declaration to final hearing. Subsequently, Brown filed concurrently with their brief yet another amendment (Paper Number 10 filed on March 7, 1996)⁴ and a third reissue declaration (Paper Number 9, filed on March 7, 1996) which is said to overcome all Chandross et al.'s objections to the original and second declarations and which is said to comply with the requisite rules and the MPEP.⁵

In Paper Number 97, mailed on September 7, 1994, the APJ redeclared the interference by: adding Brown's reissue application to the interference; substituting Count 2 for original Count 1; and, designating claims 1 through 14 and 16 through 55 of Brown's reissue application as corresponding to

⁴The amendment was unauthorized and, therefore, will not be entered.

⁵We addressed the adequacy of Brown's reissue declarations in our prior decision at pages 33 through 38.

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Count 2⁶. Reissue claims 1 and 14 designated as corresponding to the count differ from original patent claims 1 and 14 by the amendments made thereto on July 8, 1993 and August 12, 1993, respectively. Specifically, original claim 1 was amended by replacing the language "without the use of substantially any solvents" with the phrase --- with less than 12% solvent, by volume ---. In reissue claim 14, the original claim language "a substantial absence of nonpolymerizable solvents" was changed to read --- less than about 12% nonpolymerizable solvents ---.

OPINION

From all the above, it is apparent that when Brown's reissue application was added to this interference (September 7, 1994), reissue claims 1 and 14 had been amended from their original form as issued. According to the rules, as of the redeclaration date when Brown's reissue application was added to the interference, prosecution of the reissue application was suspended and no amendments or other papers related to the reissue application could be entered or considered without the

⁶ The APJ also designated Chandross et al.'s newly added claims 80 and 81, suggested by the APJ, as claims corresponding to Count 2.

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consent of the APJ. See 37 C.F.R § 1.615. Accordingly, the amendment filed on March 7, 1996 has neither been entered nor considered in this proceeding.

Because we considered the APJ's finding in Paper Number 76 that certain Brown reissue claims were considered to be allowable to be at odds with the APJ's uncontested finding that original patent claims 1 through 14 were unpatentable, we exercised our discretionary authority and afforded Brown the extraordinary opportunity to brief an issue, the issue of the patentability of his reissue claims, which neither he nor Chandross et al. elected to discuss or to argue in their briefs. We did not give nor did we intend to give Brown a second opportunity to argue now the patentability of his original patent claims which Brown elected not to argue in his brief.⁷

The record clearly establishes that the APJ found Brown's patent claims 1 through 14 corresponding to the count to be unpatentable because the claims "did not distinguish over the prior art relied upon by Brown" (pages 7 and 8 of Paper Number

⁷"This is not an opportunity for the senior party to raise or brief any other issue not raised or briefed by him in his original brief." See page number 41 of Paper Number 179.

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55). Brown did not: request reconsideration of the APJ's *sua sponte* determination under 37 C.F.R. § 1.641; set forth his views on the APJ's *sua sponte* determination or; request final hearing to challenge the APJ's determination that Brown's original patent claims were unpatentable. Rather, Brown's complete response to the APJ's *sua sponte* finding that Brown's original patent claims 1 through 14 corresponding to the count were unpatentable "over the prior art relied on by Brown" was the filing of a motion under 37 C.F.R. § 1.633(h) (Paper Number 63, filed on July 9, 1993) to add Brown's reissue application to this proceeding. In his brief for final hearing, Brown did not even raise let alone argue that the APJ's determination that original patent claims 1 through 14 were unpatentable was erroneous.

In Paper Number 76, the APJ granted Brown's motion under 37 C.F.R § 1.633(h) and indicated that "the reissue will be added to this interference and that reissue claims 1 to 14 and 16 to 55 will be designated as corresponding to the EIC's proposed count, *infra*." Thereafter, the APJ found all the reissue claims, except for reissue claims 14, 44, 45 and 48 through 55, were unpatentable under 35 U.S.C. § 103 and 35

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U.S.C. § 112, first paragraph. Brown did not address these findings by the APJ in his brief for final hearing. On page 5 of Paper Number 76, the APJ also concluded that reissue claims 14, 44, 45 and 48 through 55 were patentable over McColgin et al., apparently because McColgin did not describe the use of epoxy materials for planarizing integrated circuit structures.

Rather than comply with our briefing order, Brown has chosen instead to pursue the issues we required to be briefed by collaterally attacking what Brown perceives as the underlying basis of our determination. We shall not relieve Brown of his burden of persuasion or his duty to comply with the requirements of our previous briefing order and attempt to find support in the arguments now made by Brown in his brief as they would apply to the requirements of our briefing order.

THE PATENTABILITY OF ORIGINAL CLAIM 14

Contrary to Brown's argument in his brief in support of his reissue claims, the APJ expressly held Brown's original patent claims 1 through 14 were unpatentable from the prior art relied upon by Brown in his motion for judgment because Brown's claims did not distinguish over said prior art (Paper Number 55). We required that Brown address the patentability of his reissue application claims *vis-à-vis* his patent claims

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held to be unpatentable. We are now told by Brown that we misconstrued the record and that the APJ specifically held original patent claim 14 to be patentable. We disagree.

In the first instance, the APJ's finding in Paper Number 55 that original claims 1 through 14 were unpatentable is clear and unequivocal. Brown's reliance on the APJ's statement, taken out of context from page 5 of Paper Number 76, as evidence that the APJ considered original claim 14 to be patentable is not persuasive. The complete text of the APJ's statement on page 5 of Paper Number 76 is:

Upon review of the reissue application and the McColgin patent, the EIC is of the view that patent claim 14 and reissue claims 44, 45 and 48 to 55 are patentable over the McColgin patent. The McColgin patent discloses the use of 12.6% solvent in certain monomer systems but does not disclose the use of 12.6% solvent in an epoxy monomer as claimed in the aforesaid claims. Thus, McColgin does not anticipate or render obvious these claims. (emphasis added)

It was the APJ's interpretation of the original claim language that led to his conclusion that Brown's original patent claims 1 through 14 did not distinguish from the prior art relied on by Brown in his motion under 37 C.F.R § 1.633(a). The specifically referenced limitation for the use of 12.6% solvent in the quote above is not found in original claim 14 and, thus, could not have served as a basis for finding

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original claim 14 patentable. Original claim 14 recited a substantial absence of solvent and was amended to recite less than about 12% solvent. Thus, the limitation concerning the use of "12.6% solvent" is relevant only to reissue claim 14, as amended, not original claim 14.

Indeed, because the very limitation on which the APJ relied to distinguish from McColgin et al. in Paper Number 76 was not an original claim limitation but a reissue claim limitation, we consider the APJ's statement that "patent claim 14" was patentable was obvious, inadvertent error. Moreover, the APJ's prefatory remark that he made his determination after he had reviewed the "reissue application" also further makes it clear to this Board that the use of the phrase "patent claim 14" was an obvious, inadvertent error.

Brown also asserts that he did not concede that claim 14 was unpatentable by the filing of the reissue declaration but now argues that:

Brown uniformly indicated only that claim 1, and thus its dependents, may have claimed more than warranted.

See page 4 of paper Number 182. However, mere reference to the record evidences the error in Brown's argument. Since the sole purpose of a reissue application is to correct errors and

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because Brown amended original claim 14, it is presumed original patent claim 14 contained an error which rendered it unpatentable. Brown was required to explain in his reissue declaration every difference between the original and reissue claims and how the amended reissue claims overcame the error in the original patent claim. Brown's first two reissue declarations do not even mention the amendment to claim 14 let alone how it corrected error! The first and only mention of reissue claim 14 may be found in the third reissue declaration at page 5 thereof wherein declarant acknowledges that:

Claim 14 has been amended to add the additional limitation of using up to about 20% of solvent. This limitation was added to address the mistake contained in issued claim 14 which, by including "a substantial absence of solvent" may claim more than patentee had a right to claim. This mistake was discovered on or about June 18, 1993, when the Administrative Patent Judge ruled that the McColgin example teaches use of an amount of solvent which falls within the definition of "substantially without solvent."⁸

Clearly, and contrary to Brown's argument that he never conceded original claim 14 may have claimed more than he had a right to claim, the declarant does in the quote above concede

⁸Conditional statements of "error" in a reissue application ("may claim more than patentee had a right to claim") are inappropriate because reissue is only available to remedy actual errors.

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that original claim 14 claimed more than patentee had a right to claim because the original claim language erroneously embraced amounts of solvent used by McColgin et al.

ORIGINAL AND REISSUE CLAIM 10

In our decision, we observed that the APJ found both original patent claim 10 and reissue claim 10 to be unpatentable. We also observed that because Brown did not challenge either finding by the APJ in his brief, the APJ's determination that original claim 10 and reissue claim 10 were unpatentable was conceded by Brown. Both original claim 10 and reissue claim 10 are dependent claims which, when read to include the limitations from all other claims incorporated therein, require that the "polymerizable monomer" is an "epoxy material". Accordingly, we did not understand how the APJ could have found reissue claims 14, 44, 45 and 48 through 55 were patentable based on the limitation in those claims to "polymerizable epoxy materials" or "polymerizable epoxy compounds".

Brown now argues that while the APJ did find original claim 10 to be unpatentable, it "is inconsistent with the rest of the APJ's decision and should be discounted" and "viewed as erroneous." (page 5 of Paper Number 182). Brown urges that

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his failure to challenge the APJ's finding that claim 10 was unpatentable "should not be viewed as acquiescing to the unpatentability of claims directed to polymerizable epoxy materials." Brown concludes by arguing that:

Since the subject matter of claim 10 was always represented in pending claims found patentable and corresponding to a count awarded to the Senior Party, there was no need for Brown to contest the patentability of claim 10. Under 37 C.F.R. § 1.658(c), there is no estoppel for failure to make a motion if the claim corresponds to an awarded count. Accordingly, Senior Party Brown respectfully submits that the failure to prosecute claim 10 should not be viewed as a concession that the subject matter was unpatentable.

We do not find any of Brown's arguments to be persuasive.

In the first instance, as we have stated above, we do not find the APJ's unchallenged finding that both original claim 10 and reissue claim 10 were unpatentable to be inconsistent with the rest of the APJ's decision. Rather, it was the APJ's determination that reissue claims 14, 44, 45 and 48 through 55 were patentable which we found to be inconsistent with the aforementioned unchallenged finding.

While Brown has requested that we not view his admitted failure to challenge the aforementioned finding as an acquiescence in that finding, Brown has not provided this

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Board with any legal rationale or theory under which we could reach such a conclusion. When an issue raised below is decided contrary to a party's interest, that party has an opportunity to challenge that decision by raising that issue in his brief for final hearing. See 37 C.F.R. § 1.655(a). When a party chooses not to raise an issue in his brief, which issue was decided below contrary to his interest, the party is considered to have conceded or acquiesced in the decision below. See, for example, Cislak v. Wagner, 215 F.2d 275, 277, 103 USPQ 39, 41 (CCPA 1954) (where appellant fails to rebut facts demonstrated by appellee in his brief, the facts are accepted as having been demonstrated).

It appears to be Brown's position that because he believed that although the subject matter of claim 10 was found to be unpatentable and although he did not challenge that finding, it was unnecessary for him to do so because other claims, allegedly

directed to the subject matter of claim 10 corresponding to the count, were found to be patentable "and were awarded to the Senior Party." This argument is not reflected by the record and ignores the uncontested fact that Brown did not

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challenge the finding that either original claim 10 or reissue claim 10 were unpatentable. Indeed, Brown acknowledges in his brief in support of his reissue application that he failed to challenge the APJ's holding of unpatentability with respect to original claim 10 and reissue claim 10 (see the paragraph bridging pages 5 and 6 of Brown's brief in support of his reissue application).

Further, in our prior decision, we specifically declined to award judgment in this proceeding in light of the outstanding patentability issues which we provided the parties an opportunity to brief. Because we did not render judgment against either party in our prior decision, we do not understand the relevance of 37 C.F.R. § 1.658(c) to the issue of the patentability of reissue claim 10 or reissue claims 14, 44, 45 and 48 through 55.

While the patentability of Brown's claims was raised by the APJ, *sua sponte*, during the preliminary motions period, the APJ provided the parties with ample procedural safeguards under which patentability could be contested under the interference rules. We acted within and exercised our discretion to decide the patentability of Brown's claims as developed on the record below. Our decision, necessarily, had

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to consider all the facts below, including the admittedly unchallenged findings of the APJ with respect to those claims. Nothing in Brown's argument provides any basis for us to ignore what Brown failed to contest below, especially in light of Brown's decision not to brief this issue in his brief for final hearing.

ANDREW V. BROWN'S DECLARATION

We are now told by Brown that Andrew V. Brown's declaration filed in support of Brown's motion for judgment against Chandross et al. under 37 C.F.R. § 1.633(a) was offered simply to establish that "aromatic epoxy resins were well known in the art in 1984." Brown suggests that this statement in the declaration was made independently of and without any relevance to the issue of the patentability of Chandross et al.'s claims corresponding to the count under 35 U.S.C. § 103. Brown also argues that declarant's statement does not establish "there was any suggestion to use them for planarizing integrated circuits with substantially no solvent." (page 6 of Brown's brief).

Brown's newly articulated position concerning Andrew V. Brown's declaration is simply not credible. We agree with Chandross et al. that Andrew V. Brown's declaration must be

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considered in the context his declaration was offered. We must also consider why the declaration was proffered and what weight the APJ gave the declaration, if any.

In his motion (Paper Number 22), Brown suggested Chandross et al.'s claims were unpatentable under both 35 U.S.C. § 102 and 103 from the disclosure in McColgin et al., either alone or considered with "other references known to one skilled in the art" and "other art known to one of average skill in the art long before the Junior Party's parent application was filed." See the sentence bridging pages 1 and 2 on page 5 and the second full paragraph on page 5 of Paper Number 22. Only claim 12 of Chandross et al.'s involved application requires that the planarizing material is "an aromatic epoxy resin".

Recognizing that McColgin et al. did not expressly describe aromatic epoxy materials as useful in their invention, Brown proffered Andrew V. Brown's declaration to support his motion for judgment. See 37 C.F.R. § 1.639(a) and (b). As evidence that this feature would have been obvious at the time Chandross et al.'s invention was made, Brown, in Appendix A-2 to his motion, concluded:

Aromatic epoxy resins were well known in the art.

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Brown Decl. ¶ 11. (emphasis added)

Additionally, in light of declarant's statements in paragraphs 2 and 5, concerning declarant's knowledge of the state of the art, we agree with Chandross et al. that Andrew V. Brown's declaration was intended to convey the fact that aromatic epoxy materials were known in the art as planarization materials in 1984 and was intended to persuade the APJ to grant his motion for judgment. In fact, the APJ specifically relied on Andrew V. Brown's declaration in explaining why he granted Brown's motion for judgment.

Further, in his reply to Chandross et al.'s opposition to the motion (Paper Number 42), Brown urged at page 4 that:

minor process variations required to handle slightly different monomer materials can be addressed readily by one of average skill in the art. Brown P.M. Decl. ¶¶ 3, 4, 6.

Still further, at page 5 of the reply, Brown urged that:

coating materials and parameters were well studied before the time of Senior Party Brown's invention and a high degree of control of these parameters and corresponding results was well understood by persons skilled in the art.

Continuing on page 6 of the reply, Brown urged that Chandross et al.'s application suggested:

simple experimentation with a basic test wafer makes it "possible to determine to a good approximation

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whether a particular planarizing material will planarize the most difficult critical feature."

In light of these unequivocal representations made by Brown on the record in an effort to obtain the relief sought by him in his motion, we find we cannot now give a contrary or different meaning to declarant's representations.

We have not overlooked Brown's argument that "[t]he APJ specifically found that claim 14 was patentable over McColgin and McColgin does not teach the use of polymerizable epoxy materials." (page 7 of Brown's brief). Indeed, our prior decision specifically recognized that the APJ, in the performance of his interlocutory duties, found reissue claim 14 to be patentable. It was precisely because that finding conflicted with the APJ's unchallenged findings that original patent claims 1 through 14 and reissue claims 1 through 13, 16 through 43, 46, 47 and 56 were unpatentable that we afforded Brown the extraordinary opportunity to brief an issue he chose not to raise in his brief even though the issue had been decided below. We have exhaustively addressed this issue in our decision, *supra*.

We have also considered the context in which Brown set forth the nature of his contribution to the art when his

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application for patent was filed in considering the patentability of Brown's reissue claims. Specifically, Brown describes his process as an improvement over the prior art methods for preparing planarization layers using large amounts of solvent. There exist numerous references in Brown's specification to the conventionality of planarizing integrated circuits by spin coating a polymerizable material in a solvent on the surface of a wafer and subsequently polymerizing the material on the wafer to form a planarized layer.

There is also prior art cited in the Brown patent such as the Economy et al. reference noted by Chandross et al. in their reply to Brown's brief in support of his reissue application which describes "epoxy materials" as useful for planarization materials. We find this prior art to be representative of the prior art Brown alluded to in his motion when he discussed "other available prior art" or "other art known to one of average skill in the art" or the prior art which, when taken with McColgin et al. (page 8 of Paper Number 42), rendered Chandross et al.'s claims unpatentable. Brown's representations of the prior art may not now be disclaimed because the same prior art is now being applied against his claims rather than Chandross et al.'s.

THE PATENTABILITY OF REISSUE CLAIMS 14, 44, 45 AND 48 THROUGH

55

Brown describes the application of a "polymerizable material" over the topography of an integrated circuit "without the use of substantially any solvents" (column 3, lines 3 through 19). The term "polymerizable material" is described at column 3, lines 20 through 27; lines 44 through 56 and at column 4, lines 19 through 50 of Brown's patent. The terminology "without the use of substantially any solvents" is described by Brown as "20% by volume or less of solvents present" (column 3, lines 34 through 36). Brown's patent includes a sole example "[t]o illustrate the invention" which may be found at column 4, lines 30 through 50 and which utilizes what appear to be commercially available, proprietary products, said to be available from Union Carbide, and denominated under the trademarks "UVR 6200" and "ERL 4221"⁹. Both products are generically described as "cyclo aliphatic epoxides".

Reissue claim 14, as amended, is directed to an improved

⁹ Brown has not favored the record with the product sheets which describe the proprietary materials used in his example or the uses the manufacturer of the products used in Brown's example intended for said materials.

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process of forming a planarization layer over an integrated circuit. The process comprises applying to the integrated circuit having stepped topography, a "polymerizable epoxy material" having a particular viscosity and "less than about 12% of nonpolymerizable solvents" and thereafter spin coating the material at a particular rpm¹⁰, and after spin coating, polymerizing the material to form a layer suitable for application of a photoresist layer thereto.

Newly added reissue claim 44 is remarkably like reissue claim 14. It differs by the step of applying a "polymerizable epoxy compound" to the substrate rather than a "polymerizable epoxy material" and coats "without the use of substantially any solvent" rather than "less than 12% of nonpolymerizable solvents". Like reissue claim 14, the coating is thereafter polymerized to form a planar surface on the substrate but unlike reissue claim 14, claim 44 requires that, during polymerization, the volume change of the "polymerizable epoxy compound" is materially reduced to "permit maintenance of the substantially planar surface".

Dependent claim 45 further modifies claim 44 by requiring

¹⁰Revolutions per minute.

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that the amount of "polymerizable epoxy compound" is sufficient to permit spin coating the entire surface of the substrate. Claim 48 limits the "polymerizing" step of claim 44 to exposing the "polymerizable epoxy compound" to four types of external energy sources. Claim 49 further requires that the "polymerizable epoxy compound" includes a polymerization catalyst. Claims 50 and 51 define the "polymerizable epoxy compound" of claim 44 as a "thermoplastic material" or one "capable of cross-linking to form a thermosetting material", respectively. Claim 52 further describes the "polymerizable epoxy compound" in terms of properties possessed by the planarization layer prepared therefrom after polymerization. Claim 53 modifies claim 52 by requiring the polymerization to be achieved by exposure to ultraviolet light. Claim 54 modifies claim 53 to require ultraviolet light of a particular wavelength and limits the polymerization for from 0.1 to 60 seconds. Claim 55 modifies claim 54 by requiring the polymerization is conducted at a temperature of from 30E to 100EC.

The McColgin et al. patent, on which Brown relied in part in his motion for judgment, and on which the APJ also relied in part in concluding Brown's claims were unpatentable,

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recognizes that planarization layers coated out of solvent solutions have provided insufficient planarization due in part to hardening of the layer by the evaporation of the solvent. As the solvent evaporated, some shrinkage in the polymer was observed and the coating lost some of its planarization properties. McColgin et al. describes a large variety of suitable monomers for use in planarizing the surface of semiconductor devices including those which require a catalyst and those which are polymerized in the presence of a photoinitiator by exposure to "activating radiation" (column 5, lines 1 through 62). When applied by spin coating, a solvent may be used "if the selected liquid monomer is fairly viscous" (column 6, lines 9 through 16). The parties do not dispute that example 1 of McColgin et al. describes spin coating one of the monomers claimed by Chandross et al. in the substantial absence of solvent as that terminology is defined by Brown.¹¹

Thus, Brown's independent reissue claims 14 and 44 differ

¹¹We have not overlooked Brown's argument that he believes Example 1 of McColgin et al. to either be an error or anomalous. There is simply no evidence of record which supports either theory, which we consider to be mere attorney argument.

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from the disclosure in McColgin et al. by requiring as the "polymerizable material" a "polymerizable epoxy compound" not specifically described by McColgin et al. and by coating the substrate in the presence of "less than about 12% nonpolymerizable solvent" or "without the use of substantially any solvent", respectively. The question, therefore, is whether, against the scope and content of the prior art as discussed herein by us and in this proceeding by the parties, considering the level of skill in this art as shown by the prior art and as represented by the parties in this proceeding, both in the motions period and in their briefs, the differences between what Brown claims and the prior art would have been obvious to a person of ordinary skill in the art at the time Brown's invention was made.

We are satisfied from the disclosure in McColgin et al. concerning the recognized problems with spin coating planarization layers out of solution that a person of ordinary skill in the art would have been motivated to reduce the amount of solvent to a degree where hardening of the planarization layer by evaporation of solvent was no longer observed. We reach that conclusion, in part, based on McColgin et al.'s disclosure recognizing that the selection of

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useful monomers and the amount of solvent to be used in spin coating planarization layers with any particular monomer is well known and within the skill of the routineer in this art.

Brown supports that conclusion by his arguments and representations in his motion for judgment and in his reply to Chandross et al.'s opposition to the motion for judgment concerning the level of skill in the art. Coupled with the disclosure in McColgin et al. of an example which actually describes a process as claimed by Brown in original claim 1 but which example differs from reissue claim 14 in the use of a particular, different "polymerizable monomer" than required in reissue claim 14 and slightly more solvent, we consider the subject matter of reissue claims 14 and 44, and those claims dependent thereon, would have been obvious to a person of ordinary skill in the art at the time Brown's invention was made. Indeed, McColgin et al.'s example 1 describes spin coating "without substantially any solvent" as that term is defined by Brown and differs from claim 44 essentially by not using a "polymerizable epoxy compound" as required in claim 44.

Brown's dependent reissue claims are directed to certain process parameters (energy source, exposure time, exposure

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temperature, particular reactants, spin coating speed) which are either disclosed in McColgin et al. (the examples disclose spin coating at various rpm's as claimed, using UV light to polymerize as claimed for time periods as claimed, at temperatures as claimed, etc.) or would have been considered to be within the skill of the routineer to determine through routine (not undue) experimentation because the parameters are recognized as so-called "result effective variables"¹².

Brown has vigorously asserted throughout this proceeding that selection of the coating material and other process variables could have been easily determined by persons of ordinary skill in the art. We agree with Brown's assertions and we shall not permit Brown to retreat from his representations concerning the selection of materials and optimization of process variables which he made in seeking the grant of his motion for judgment. All Brown's prior representations strongly support our finding concerning the level of skill of the routineer in this art. Additionally, except for requiring a particular planarizing material

¹² It has been consistently held that optimization of such parameters, known as result effective variables, is entirely within the skill of the ordinary routineer in the art. In re Boesch, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980).

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("polymerizable epoxy compound") we find little difference, if any, between original claim 14, conceded to be unpatentable by Brown, and newly presented reissue claim 44.

Accordingly, from all the above, we find that Brown's reissue claims 14, 44, 45 and 48 through 55 are unpatentable under 35 U.S.C. § 103 for the reasons expressed above.

SUMMARY

Claims 1 through 14 of Brown's original patent involved in this interference are unpatentable under both 35 U.S.C. §§ 102 and 103 for the reasons given in the APJ's unchallenged findings in Paper Number 55.

Claims 1 through 13, 16 through 43, 46, 47 and 56 of Brown's reissue application are unpatentable under both 35 U.S.C. §§ 103 and 112, first paragraph, for the reasons given in the APJ's unchallenged findings in Paper Number 76.

RECONSIDERATION

The time for requesting reconsideration of this final decision is now set to expire **1 (one) month** from the date of this decision. 37 C.F.R. § 1.658(b).

OTHER ISSUES

On pages 7 and 8 of his brief, Brown has raised an issue,

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the patentability of his reissue claims under 35 U.S.C. § 112, first paragraph (written description), which we did not authorize Brown to address. Brown has also attached to his brief a proposed "draft" fourth preliminary amendment to his reissue application. We did not authorize Brown to file nor did Brown seek our authorization to file the further amendment of the reissue application. Accordingly, we will not consider Brown's arguments as set forth in his brief on this issue or the proposed amendment to Brown's reissue claims filed therewith.

JUDGMENT

Judgment as to the subject matter of Count 2 in this interference is awarded against Edwin A. Chandross, Ray L. Hartless, Warren Yiu-Cho Lai, Ronald G. Larson, George W. Reutlinger, Ronald J. Schutz, Larry Stillwagon and Gary N. Taylor, the junior party. Edwin A. Chandross, Ray L. Hartless, Warren Yiu-Cho Lai, Ronald G. Larson, George W. Reutlinger, Ronald J. Schutz, Larry Stillwagon and Gary N. Taylor, the junior party, are not entitled to a patent containing claims 1 through 12, 21, 80 and 81 of their involved application corresponding to Count 2.

Judgment as to the subject matter of Count 2 in this

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interference is awarded against Andrew V. Brown, the senior party. Andrew V. Brown, the senior party, is not entitled to his involved patent containing claims 1 through 14 corresponding to Count 2.

Judgment as to the subject matter of Count 2 in this interference is awarded against Andrew V. Brown, the senior party. Andrew V. Brown, the senior party, is not entitled to a patent containing claims 1 through 14 and 16 through 55 of his involved reissue application corresponding to Count 2.

IAN A. CALVERT)
Administrative Patent Judge)
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ANDREW H. METZ)BOARD OF PATENT
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