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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JENS SCHULZ, JENS NIELSEN, RAINER KROEPKE,
GUNHILD HAMER, ASTRID HEPTNER, and SVEA BEHRENS¹

Appeal 2015-002765
Application 11/547,104
Technology Center 1600

Before ULRIKE W. JENKS, RICHARD J. SMITH,
and TIMOTHY G. MAJORS, *Administrative Patent Judges*.

MAJORS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to methods of reducing skin irregularities or cellulite by applying of a cosmetic composition. The claims have been rejected as obvious. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify the Real Party in Interest as Beiersdorf AG. (App. Br. 3.)

STATEMENT OF THE CASE

Appellants' "invention relates to a cosmetic preparation containing an emulsifier combination of polyacrylic acid salts, acrylate/C10-30 alkyl acrylate crosspolymer and carrageenan and the use of the cosmetic preparation." (Spec. ¶ 1.)

Claims 35–56 are on appeal. Claim 35 is illustrative:

35. A method of reducing skin irregularities or cellulite, wherein the method comprises applying to skin a cosmetic composition comprising one or more active substances for reducing skin irregularities or cellulite and, based on a total weight of the composition,

- (a) from 0.01 % to 1.5 % by weight of one or more salts of polyacrylic acid;
- (b) from 0.01 % to 1.5 % by weight of one or more salts of crosslinked polyacrylic acid;
- (c) from 0.01 % to 1.5 % by weight of acrylate/C10-30 alkyl acrylate crosspolymer; and
- (d) from 0.01 % to 2.5 % by weight of carrageenan.

(App. Br. 24 (Claims App'x).)

The claims stand rejected as follows:

- I. Claims 35–40, 46–50, and 54 under 35 U.S.C. § 103(a) over Dilallo² and Dueva³ ("Rejection I").
- II. Claims 35–40 and 42–54 under 35 U.S.C. § 103(a) over Dilallo, Dueva, and Morariu⁴ ("Rejection II").

² Dilallo et al., US 2005/0063932 A1, published Mar. 24, 2005 ("Dilallo").

³ Dueva et al., US 2004/0028709 A1, published Feb. 12, 2004 ("Dueva").

⁴ Morariu, US 2006/0216251 A1, published Sept. 28, 2006 ("Morariu").

III. Claims 35–56 under 35 U.S.C. § 103(a) over Dilallo, Dueva, Morariu, and Smith⁵ (“Rejection III”).

REJECTION I

Issue

Has the Examiner established by a preponderance of the evidence that claims 35–40, 46–50, and 54 would have been obvious over Dilallo and Dueva?

Findings of Fact (FF)

FF 1. The Examiner’s findings of fact and statement of Rejection I may be found at pages 4–7 of the October 11, 2013 Final Rejection. (*See also* Ans. 2–8.) We adopt the Examiner’s findings concerning the scope and content of the prior art and provide the following for emphasis.

FF 2. Dilallo teaches skin-care compositions comprising active agents. (Dilallo Abstract.) For example, Dilallo teaches “according to a first embodiment, the skin care composition is composed of a safe and effective amount of at least one anti-wrinkling agent and a safe and effective amount of a natural exfoliating complex.” (*Id.* at ¶ 6.) Dilallo further teaches “in other exemplary embodiments, the skin care composition may include other components including, but not limited to, conditioning agents, skin protectants, antioxidants, UV absorbing agents, sunscreen actives, cleansing agents, viscosity modifying agents, film formers, . . . skin barrier repair aids, . . . and/or combinations thereof.” (*Id.* at ¶ 35.)

⁵ Smith, US 5,874,074, issued Feb. 23, 1999 (“Smith”).

FF 3. Dilallo discloses several working examples of skin-care compositions. For example, Dilallo discloses a composition including, *inter alia*, an anti-wrinkle agent (hexapeptide-3), carbomer (Carbopol 940) (0.3 % w/w) and sodium polyacrylate (in combination with water and glycerin). (*Id.* at ¶ 43 (Table 3).) Dilallo discloses another working example that includes, *inter alia*, carrageenan (0.2 % w/w) and acrylate/C10-30 alkyl acrylate crosspolymer (0.25% w/w). (*Id.* at ¶ 47 (Table 5); *see also id.* at ¶ 53 (Table 8) (composition including carrageenan and carbomer, among other ingredients).)

FF 4. Dueva teaches

a cosmetic composition that has an amount of *at least two rheology-modifying agents* such that the viscosity of the composition remains stable over a broad temperature range. The compositions of the present invention may also include at least one of the following additional components: sunscreen agent, SPF booster, secondary emulsifier, emollient, moisturizer, humectant, film former/waterproofing agent, bio-active (functional) ingredient . . . or any combinations thereof.

(Dueva Abstract (emphasis added).) Dueva teaches “formulating the compositions with [] at least one rheology modifying agent, and *more preferably two or more rheology modifying agents*” allows the compositions to remain stable over a broad temperature range and also enhances the feeling of softness and silkiness of the composition on the skin. (*Id.* at ¶ 22 (emphasis added).)

FF 5. Dueva teaches “[p]referably, the rheology modifying agents are one or more polymeric emulsifiers in combination with one or more thickening agents.” (*Id.* at ¶ 26.) Dueva discloses “[s]uitable polymeric

emulsifiers . . . include, but are not limited to, acrylates crosspolymer, acrylates/C₁₀₋₃₀ alkylacrylate crosspolymer, . . . polyacrylic acid, sodium polymethacrylate, sodium polyacrylate, polyacrylates, or any combination thereof.” (*Id.* at ¶ 27.) Dueva teaches “[s]uitable thickening agents . . . include, but are not limited to, one or more . . . acrylates/C₁₀₋₃₀ alkylacrylate crosspolymer, . . . sodium carbomers, sodium polyacrylates, . . . sodium carrageenan, . . . or any combinations thereof.” (*Id.* at ¶ 29.)

FF 6. Dueva teaches “[p]referably, the emulsifier is present in an amount of about 0.1 wt. % to about 5 wt. % of the total weight of the composition” and “[p]referably, the thickener is present in an amount about 0.1 wt. % to about 5 wt. % of the total weight of the composition.” (*Id.* at ¶¶ 28, 30.) Dueva further teaches “by including a combination of one or more emulsifiers with one or more thickening agents in a concentration ratio of about 1:10 to about 10:1 . . . results in compositions having stable viscosity over a broad temperature range.” (*Id.* at ¶ 31.)

Principles of Law

“[W]hen the question is whether a patent claiming the combination of elements of prior art is obvious,” the answer depends on “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). “It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose. . . . [T]he idea of combining them flows logically from their having been

individually taught in the prior art.” *In re Kerkhoven*, 626 F.2d 846, 850 (CCPA 1980).

Analysis

Except as discussed below, Appellants argue the patentability of the claims subject to Rejection I as a group. We select claim 35 as representative.

The Examiner finds that Dilallo teaches each of the components in the composition of claim 35, but does not “specifically teach a method of using a composition comprising all of the components in a single embodiment.” (Final Act. 6.) The Examiner reasons, however, that “one of ordinary skill in the art would have been motivated to combine the components of the reference into a single composition based on the teachings of Dueva.” (*Id.*) According to the Examiner, Dueva “teaches that the thickness of a cosmetic composition may be modified based upon the combination of emulsifiers and thickeners . . . , and that the emulsifiers and thickeners include the components recited in the instant claims.” (*Id.*)

The Examiner also concludes the skilled person “would have arrived at the ratios and sums of the components in the composition recited in the claims . . . in the course of routine experimentation, particularly because Dueva teaches that the components of the composition may be varied in order to arrive at a composition with the desired thickness.” (*Id.* at 7.)

Appellants argue the “rejection alleges that Carbopol 940 [as disclosed in Dilallo] is a salt of a crosslinked polyacrylic acid,” but “the Examiner has not provided any documentary evidence” that supports this assertion. (App. Br. 7.) Appellants allege the website, cited by the

Examiner, describes Carbopol® 940 as “sodium acrylate” or “sodium polyacrylate” but fails to indicate that the compound is crosslinked. (*Id.*) Appellants further contend that it “is not seen that the corresponding lists of examples provided by DUEVA include salts of crosslinked polyacrylic acid.” (*Id.* at 8–9.)

This argument is unpersuasive. As the Examiner points out, “the manufacturer of Carbopol 940 . . . defines Carbopol 940 as ‘a cross-linked polyacrylate polymer’ . . . [and] ‘polyacrylate’ is, by definition, the salt form of polyacrylic acid.” (Ans. 4.) Moreover, Dilallo describes Carbopol 940 as a “carbomer” and Dueva states that a preferred thickening agent is “sodium carbomer.” (FF 3, 5.) Appellants’ Specification identifies “carbomers as cross-linked polyacrylic acid salts” and states that “[t]he preferred cross-linked polyacrylic acid salt is sodium carbomer.” (Spec. ¶ 16.) The cited prior art thus teaches the use of salts of crosslinked polyacrylic acid.

Appellants argue claim 35 recites a cosmetic composition including four polymeric components, but Dilallo “discloses the four polymeric substances in claim 35 in two different compositions.” (App. Br. 7–8; *see also* Reply Br. 2–4.) Similarly, Appellants argue “none of the exemplified compositions of DILALLO appears to contain more than two polymeric thickeners.” (App. Br. 8.)

This argument is also unpersuasive. Dilallo’s teachings are not limited to preferred embodiments or working examples. *Merck & Co., Inc. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807 (Fed. Cir. 1989) (“[I]n a section 103 inquiry, the fact that a specific [embodiment] is taught to be preferred is not controlling, since all disclosures of the prior art, including unpreferred

embodiments, must be considered.”) (internal quotation marks omitted). So too, “disclos[ing] a multitude of effective combinations [in the prior art] does not render any particular formulation less obvious. This is especially true because the claimed composition is used for the identical purpose taught by the prior art.” (*Id.*) Inasmuch as claim 35 is directed to a method of “reducing skin irregularities” by applying a cosmetic composition, Dilallo’s anti-wrinkle composition is reasonably interpreted as being used for the same purpose.

Moreover, absent factual evidence to the contrary, it would have been obvious “to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose.” *In re Kerkhoven*, 626 F.2d at 850. In other words, the skilled artisan would have predictably designed a composition that combined the polymer components described in Examples 3 (Carbopol 940 and sodium polyacrylate) and 5 (carrageenan and acrylate/C10-30 alkyl acrylate crosspolymer) of Dilallo. (FF 3.) Appellants contend the skilled person “would clearly try to keep the number of components to a minimum” (Reply Br. 3), but Appellants provide insufficient factual evidence to support this contention. *See In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997) (argument by counsel cannot take the place of evidence).

Appellants’ argument is also unpersuasive because Dueva expressly teaches that cosmetic compositions comprising “two or more” rheology-modifying components are preferred. (FF 4–5; Ans. 5.) Dueva lists the same compounds as in Appellants’ claim 35 among Dueva’s suitable

rheology-modifying agents. (Final Act. 6; FF 5.). And, as noted by the Examiner, “Appellant[s] ha[ve] not provided any unexpected results of the claimed combination of routine components known in the art to be used to manipulate the rheology of a composition.” (Ans. 6.) We are, in short, not persuaded that the Examiner relied on impermissible hindsight. Rather, the Examiner’s conclusion of obviousness is rooted on the predictable combination and use of well-known emulsifiers and thickeners in a cosmetic composition.

Appellants argue “the rheology modifying agents for use in the sunscreen compositions of DUEVA serve a purpose which would not be of any apparent advantage in the case of the compositions of DILALLO (i.e., compositions which are wrinkle reducing and skin exfoliating).” (App. Br. 11; *see also* Reply Br. 4–5.) According to Appellants, the purpose of the rheology-modifying agents in Dueva “is to provide products whose viscosity remains relatively stable over a broad temperature range” (App. Br. 12), yet Dilallo’s compositions “are not usually [] exposed to large temperature variation and thus, do not have to show a relatively stable viscosity over a broad temperature range” (*id.* at 13.)

We disagree. Dueva teaches that its compositions are formulated to be stable at higher temperatures, but also that they enhance the feeling of softness and silkiness on the skin, which would be broadly desirable in various cosmetics. (FF 4; *see also* Ans. 6–7.) In addition, although Dueva’s compositions are especially advantageous for sunscreens, Dueva discloses that “all cosmetic compositions may be exposed to elevated temperatures.” (Dueva ¶ 6; FF 4.) Appellants’ argument that Dueva’s formulations would

have no apparent applicability to Dilallo also overlooks Dilallo's teaching that, in exemplary embodiments, its skin care composition may include "UV absorbing agents" and "sunscreen actives." (FF 2; *see also* Dilallo ¶¶ 11, 36, 38, and claims 6, 10, 14.) Accordingly, we are not persuaded that the combination of rheology-modifying agents suggested in Dueva would provide no advantage in the compositions of Dilallo.

For these reasons, we conclude the Examiner established by a preponderance of the evidence that claim 35 would have been obvious over Dilallo and Dueva. Claims 36–38, 46, 47, 49, 50, and 54 have not been argued separately and thus fall with claim 35. 37 C.F.R. § 41.37(c)(1)(iv).

Claim 39

Claim 39 depends (directly or indirectly) from claims 35 and 37, and further provides "a weight ratio of [(a) plus (b)] to (c) is from 1 : 10 to 10 : 1. (App. Br. 24 (Claims App'x).)⁶

Appellants contend the Examiner erred in concluding that the ratios recited in claim 39 would have been obvious as a matter of routine experimentation over the teachings in Dilallo and Dueva in order to provide a composition with a desired thickness. (App. Br. 14.) Appellants argue Dueva "has nothing to do with providing a composition with 'the desired thickness' . . . [but instead] aims at providing a sunscreen composition whose viscosity remains relatively stable over a broad temperature range." (*Id.*) Appellants further contend "it is not seen that one of ordinary skill in the art can derive from DUEVA that in order to provide a composition with

⁶ Claim 37 recites that "the composition comprises (a) to (d) in a total concentration of at least 0.5 % by weight." (App. Br. 24 (Claims App'x).)

a stable viscosity over a broad temperature range the weight ratio recited in instant claim 39 plays any role (is a result-effective variable).”

This argument is not persuasive. For the reasons above, we reject Appellants’ arguments seeking to distinguish over Dueva as a sunscreen composition. Dueva and Dilallo teach use of the same polymer components as recited in claim 39 in cosmetic compositions, and teach concentrations that overlap with the present claims. (Final Act. 5–7; FF 3, 5, 6.) *In re Aller*, 220 F.2d 454, 456 (CCPA 1955) (“[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.”); *see also In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003). And, because at least Dueva teaches that these components act as rheology-modifying emulsifiers and thickening agents in cosmetic compositions, the art sufficiently recognizes the components are results-effective variables — the concentrations of which the skilled artisan would predictably modify to design cosmetics with desired properties (e.g., thickness, viscosity, etc.). (FF 4–6.)⁷ Absent persuasive factual evidence to the contrary, we thus agree with the Examiner that the skilled artisan would have formulated a cosmetic composition having the claimed ratios through routine experimentation. (Ans. 6; Final Act. 6–7.)

⁷ In fact, Dueva teaches combining the emulsifiers and thickening agents in a concentration ratio of about 1:10 to about 10:1 results in compositions with stable viscosities over a broad temperature range. (FF 6.)

Claim 40

Claim 40 depends (directly or indirectly) from claims 35 and 37, and further provides “a weight ratio of [(a) plus (b)] to (d) is from 1 : 10 to 10 : 1.” (App. Br. 25 (Claims App’x).)

Appellants’ arguments concerning claim 40 (App. Br. 15–16) are repetitive to those concerning claims 35 and 39 and, for the reasons above, are not persuasive.

Claim 48

Claim 48 depends from claim 35 and further recites “the composition is substantially free of lipids.” (App. Br. 26 (Claims App’x).)

Appellants argue “DILALLO clearly does not contain an affirmative statement to the effect that the skin care compositions disclosed therein should be substantially free of lipids. On the contrary, most of the exemplified compositions of DILALLO contain (significant amounts of) one or more lipids.” (App. Br. 16.)

We are not persuaded. As the Examiner explains, at least one of Dilallo’s examples includes no lipids (Ans. 8 (citing Example 7 of Dilallo)) and thus the skilled person would have understood that lipids are not a required additive. Dueva is similar and teaches that lipids may optionally be used. (Dueva ¶ 54.) Appellants have not persuasively shown that the skilled artisan would regard the addition or omission of lipids as anything other than an obvious design choice. (Final Act. 5–6; Ans. 6.)

REJECTION II

We adopt the Examiner's findings, reasoning, and conclusion of obviousness with respect to the rejection of claims 35–40 and 42–54 over Dilallo, Dueva, and Morariu. (Final Act. 8–9.)

Appellants state that this rejection appears to relate more specifically to claims that recite the further addition of carnitine. (App. Br. 17; *see, e.g.*, claims 42–45.) The Examiner turns to Morariu, which teaches a topical composition comprising carnitine that “is useful in improving the appearance of aged skin characterized by wrinkles and loss of elasticity.” (Morariu Abstract; *see also id.* at ¶¶ 23–29.) The Examiner concludes it would have been obvious for the skilled artisan to add carnitine to a composition used in the method of Dilallo, as modified by Dueva, to obtain the benefits of carnitine taught in Morariu. (Final Act. 8.)

Appellants do not dispute the Examiner's findings or conclusion with respect to Morariu and, instead, refer to their arguments concerning the alleged deficiencies of Dilallo and Dueva. (App. Br. 17–18.) Those arguments are unpersuasive as discussed above.

Appellants separately argue the patentability of claim 53 because it includes the limitation “substantially free of lipids.” (App. Br. 18.) This argument is also unpersuasive as discussed above concerning claim 48.

For these reasons, we conclude the Examiner established by a preponderance of the evidence that claims 35–40 and 42–54 would have been obvious over Dilallo, Dueva, and Morariu.

REJECTION III

Issue

Has the Examiner established by a preponderance of the evidence that claims 35–56 would have been obvious over Dilallo, Dueva, Morariu, and Smith?

Findings of Fact (FF)

FF 7. The Examiner’s findings of fact and statement of Rejection III may be found at pages 9–10 of the October 11, 2013 Final Rejection. (*See also* Ans. 8.) We adopt the Examiner’s findings concerning the scope and content of the prior art and provide the following for emphasis.

FF 8. Smith teaches an “occlusive or semi-occlusive barrier moisturizing lotion useful for treating pathologies of the skin.” (Smith Abstract.) Smith teaches the lotion includes “at least one polyhydric alcohol, a barrier polymer, and a therapeutical agent The emollient system of the lotion provides a moisturizing and soothing effect on the skin, and the occlusive/semi-occlusive nature of the lotion causes hydration of the skin to facilitate and enhance penetration of the [therapeutic agent] into the skin.” (*Id.*) Smith teaches “[u]seful [barrier] polymers that may be included in the present lotions include polyvinylpyrrolidone (PVP) . . . [and] PVP/vinyl acetate (PVP/VA) copolymer” among other polymers. (*Id.* at col. 4, ll. 15–35.) Smith teaches such polymers are included “preferably in an amount that is about 0.5–15 wt-%, more preferably about 1–7 wt-% of the total lotion.” (*Id.* at col. 4, ll. 5–8; *see also id.* at col. 11, ll. 10–14.)

Analysis

Except as to claim 56 (addressed separately below), Appellants argue the patentability of the claims subject to Rejection III as a group. Because Appellants' arguments concerning Rejection III focus on whether it would have been obvious to add a vinylpyrrolidone/vinyl acetate copolymer to the cosmetic composition, we have selected claim 41 as representative. Claim 41 depends from claim 35 and recites "wherein the composition further comprises from 0.01 % to 2.5 % by weight of a vinylpyrrolidone/vinyl acetate copolymer." (App. Br. 25 (Claims App'x).)⁸

The Examiner finds that Smith teaches compositions for treating skin conditions that "may comprise vinylpyrrolidone/vinyl acetate copolymer (PVP/VA copolymer) in the claimed percentages (e.g. 2.5%[])." (Final Act. 9.) The Examiner reasons "[o]ne of ordinary skill in the art would have been motivated to combine the PVP/VA of the compositions of Smith with the compositions of the method of Dilallo and Morariu because . . . the polymer is desirable for use as a barrier polymer in skin treatment compositions." (*Id.*) The Examiner further reasons the skilled artisan "would have had a reasonable expectation of success in combining the polymer of Smith with the composition used in the method of Dilallo, as modified by Dueva and Morariu, because the references teach that the compositions used for the

⁸ Appellants omitted claim 41 from the heading where they argue the patentability of the claims over Dilallo, Dueva, Morariu, and Smith. (App. Br. 19.) In summarizing the rejection, however, Appellants state "[t]he rejection (which apparently relates specifically to claims 41, 55 and 56)" (*Id.*) We thus understand Appellants' omission of claim 41 in the heading to have been inadvertent.

treatment of skin may be formulated to contain a number of various components in different combinations.” (*Id.* at 9–10.) The Examiner thus concludes it would have been obvious to arrive at the subject matter of claim 41. (*Id.* at 10.)

Appellants argue that none of Dilallo, Dueva, or Morariu teaches or suggests the combination of polymeric substances in claim 35 (from which claim 41 depends), and that Smith is unable to cure this deficiency. This argument is unpersuasive for the reasons discussed above.

Appellants also argue that, by including vinylpyrrolidone/vinyl acetate copolymer, the Examiner’s proposed composition would now include five polymeric substances — something that would be “highly unusual” according to Appellants based on the “exemplified compositions” in the cited art. (App. Br. 20.) We are unpersuaded. As noted above, the prior art is not limited to its preferred embodiments or working examples. At least Dueva suggests that *two or more* polymeric substances are preferred. (FF 4–5.) And Appellants do not provide sufficient evidence to support the contention that it would be highly unusual to include the number of polymers recited in the claims. *In re Geisler*, 116 F.3d at 1471.

Finally, Appellants argue the compositions of Dilallo and Smith serve different purposes, and “it is not seen that including vinylpyrrolidone/vinyl acetate copolymer in a composition according to DILALLO would result in any advantage.” (App. Br. 20.) Appellants point out that the compositions of Dilallo contain at least one wrinkle reduction agent and a natural exfoliating complex, while Smith’s compositions are occlusive or semi-occlusive lotions for treating skin disorders. (*Id.*) Appellants contend

“SMITH discloses a host of examples of suitable barrier polymers, but clearly fails to teach that vinylpyrrolidone/vinyl acetate copolymers are particularly preferred.” (*Id.* at 22.) And, according to Appellants, “it is not seen that the inclusion of a barrier polymer makes sense for a composition that has an exfoliating effect.” (*Id.* at 22; *see also* Reply Br. 5–7.)

These arguments are unpersuasive.

First, as to Appellants’ contention that Smith teaches many compounds that may function as a barrier polymer and “clearly fails” to teach that vinylpyrrolidone/vinyl acetate polymers are preferred, we disagree. Even if Smith’s teachings were limited to preferred embodiments, numerous of Smith’s working examples do employ PVP/VA copolymer as a preferred polymer. (*See, e.g.*, Smith cols. 7–8 (Example 1), col. 9 (Example III), col. 11 (Example IX).) Smith further claims “vinylpyrrolidone/vinyl acetate copolymer” among a shortlist of preferred copolymers. (*Id.* at col. 11 (claim 4).)

Second, as to Appellants’ suggestion that it would not make sense to include a barrier polymer (of Smith) in an anti-wrinkle and exfoliating composition (of Dilallo), we are unpersuaded. Dilallo teaches that its composition may include, among other ingredients, skin protectants, film formers, and skin barrier repair aids. (FF 2; Ans. 8.) The occlusive or semi-occlusive barrier polymers of Smith are reasonably interpreted to be within the scope of components that Dilallo teaches may optionally be included in its cosmetic compositions. Moreover, even if adding a barrier polymer might reduce the exfoliating effect of Dilallo’s composition, that does not mean the Examiner’s combination would have been nonobvious. *See In re*

Urbanski, 809 F.3d 1237, 1243 (Fed. Cir. 2016) (holding that a combination of references may be obvious even if the combination is at the expense of a benefit of one of the references). Rather, it cannot be overlooked that including Smith’s polymer would be expected to provide advantages in Dilallo’s composition — enhanced protection to the skin (e.g., limiting water evaporation, increasing hydration, and enhancing penetration of active agents). (FF 8; Ans. 8). Appellants have provided insufficient persuasive evidence that adding the barrier polymers of Smith would render Dilallo’s composition inoperable or unsuitable for its intended purpose.

For these reasons, we conclude the Examiner established by a preponderance of the evidence that claim 41 would have been obvious over Dilallo, Dueva, Morariu, and Smith. Claims 35–40 and 42–55 have not been argued separately and thus fall with claim 41.

Claim 56

Claim 56 depends from claim 55 and recites “wherein the composition is substantially free of lipids and is present as an aqueous or aqueous-alcoholic gel.” (App. Br. 27 (Claims App’x).)

Appellants essentially repeat their arguments concerning the alleged absence in the art of any teaching or suggestion of compositions “substantially free of lipids.” (*Id.* at 22.) These arguments are unpersuasive as discussed above.

SUMMARY

We affirm the rejection of claims 35–40, 46–50, and 54 over Dilallo and Dueva.

We affirm the rejection of claims 35–40 and 42–54 over Dilallo, Dueva, and Morariu.

We affirm the rejection of claims 35–56 over Dilallo, Dueva, Morariu, and Smith.

TIME PERIOD FOR RESPONSE

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

AFFIRMED