~~CLAIMS~~

~~What is claimed is:~~

Claims

1. A method for selectively applying a composition to a treatment surface, comprising:

(i) analyzing, by a processing arrangement, image data corresponding to an imaged area of the treatment surface to determine an artifact magnitude of a location within the imaged area of the treatment surface;

(ii) comparing, by the processing arrangement, the artifact magnitude of the location to a predetermined threshold value~~; and~~

~~(iii) applying, by an~~, wherein the predetermined threshold value is dynamically or periodically adjusted based on a deposition rate of an applicator arrangement; (iii) applying, by the applicator arrangement, a fixed amount of the composition to the location only when the artifact magnitude of the location exceeds the predetermined threshold value, wherein the fixed amount of the composition is selected to reduce the artifact magnitude by a predetermined coverage level, and wherein the predetermined threshold value is selected to exceed the predetermined coverage level; (iv) repeating steps (i) through (iii) for a subsequent area of the treatment surface until a predetermined condition has been met; (v) adjusting the predetermined threshold value to a second value lower than the previous predetermined threshold value based on the deposition rate; and (vi) repeating steps (i) through (iii) for a further area of the treatment surface using the adjusted lower predetermined threshold value.

2. The method of claim 1, wherein the artifact magnitude is determined based on a reflectance of the imaged area of the treatment surface.

3. The method of claim 2, wherein the artifact magnitude is determined as a percentage of light reflectance of the location ~~that comprises spatial frequency components within middle spatial frequencies for the imaged area of the treatment surface.~~ .

4. The method of claim 1, wherein the composition is a cosmetic composition comprising a reflectance modifying agent.

5. The method of claim 1, wherein the composition comprises an active ingredient for treating a skin condition.

6. The method of claim 1, ~~further comprising:~~

~~(iv) repeating steps (i) through (iii) for a subsequent area of the treatment surface until a predetermined condition has been met;~~

~~(v) adjusting the predetermined threshold value to a second value lower than the previous predetermined threshold value; and~~

~~(vi) repeating steps (i) through (iii) for a further area of the treatment surface using the adjusted predetermined threshold value.~~

~~7. The method of claim 6,~~ wherein the second value is higher than the predetermined coverage level.

~~8.~~ 7. The method of claim ~~6~~1, wherein the predetermined condition is met upon receipt of an input from a user.

~~9.~~ 8. The method of claim ~~6~~1, wherein the predetermined condition is met when a deposition rate of the applicator arrangement falls below a predetermined rate.

~~10. The~~9. A method ~~of claim 1, further~~for selectively applying a composition to a treatment surface, comprising:

(i) analyzing, by a processing arrangement, image data corresponding to an imaged area of the treatment surface to determine an artifact magnitude of a location within the imaged area of the treatment surface; (ii) comparing, by the processing arrangement, the artifact magnitude of the location to a predetermined threshold value, wherein the predetermined threshold value is dynamically or periodically adjusted based on a deposition rate of the applicator arrangement; (iii) applying, by an applicator arrangement, a fixed amount of the composition to the location only when the artifact magnitude of the location exceeds the predetermined threshold value, wherein the fixed amount of the composition is selected to reduce the artifact magnitude by a predetermined coverage level, and wherein the predetermined threshold value is selected to exceed the predetermined coverage level; (iv) adjusting, by the processing arrangement, the predetermined threshold value to a value lower than the previous predetermined threshold value based on a deposition rate of the applicator arrangement; and

(v) repeating steps (i) through (iv) using the adjusted lower predetermined threshold value for a next area of the treatment surface.

~~11.~~ 10. The method of claim ~~10~~9, wherein the predetermined threshold value is adjusted to maintain the deposition rate of the applicator arrangement substantially constant.

~~12.~~ 11. A handheld device for selectively applying a composition to a treatment surface, comprising:

~~———~~ an applicator arrangement configured to apply a fixed amount of the composition to the treatment surface;

~~———~~a detector obtaining image data corresponding to an image of an area of the treatment surface; and

a processing arrangement analyzing the image data to determine an artifact magnitude of a frexel within the area of the treatment surface, the processing arrangement directing the applicator arrangement to apply the fixed amount of the composition to the frexel when the artifact magnitude of the frexel is greater than a predetermined threshold value, wherein the predetermined threshold value is selected to exceed the predetermined coverage level of artifact reduction imparted by the fixed amount of the composition when applied to the treatment surface, wherein the predetermined threshold value is dynamically or periodically adjusted by the processing arrangement based on a deposition rate of the applicator arrangement, the predetermined threshold value being adjusted to a value lower than the previous predetermined threshold value based on the deposition rate, and wherein the processing arrangement directs the applicator arrangement to apply the fixed amount of the composition to a frexel in a next area of the treatment surface when an artifact magnitude of the frexel in the next area of the treatment surface is greater than the adjusted lower predetermined threshold value.

~~13.~~ 12. The handheld device of claim ~~12~~11, wherein the composition comprises at least one of a reflectance modifying agent and an active ingredient for treating a skin condition.

~~14.~~ 13. The handheld device of claim ~~12~~11, wherein the detector arrangement comprises a light source for delivering light to the area of the treatment surface, and a sensor detecting light from the area of the treatment surface to obtain the image data.

~~15.~~ 14. The handheld device of claim ~~12~~11, wherein the artifact magnitude is determined based on a reflectance of the treatment surface detected in the image.

16. 15. The handheld device of claim 1211, wherein the artifact magnitude is determined as a percentage of light reflectance of a frexel that comprises spatial frequency components within middle spatial frequencies forwithin the imaged area of the treatment surface.

17. The handheld device of claim 11, wherein the processing arrangement adjusts the predetermined threshold value to a second value when a predetermined condition has been met, the second value being lower than the previous predetermined threshold value and greater than the predetermined coverage level.

18. The handheld device of claim 1716. The handheld device of claim 11, further comprising a user interface enabling a user to manually signal to the processing arrangement that the predetermined threshold value should be adjusted.

19. 17. The handheld device of claim 1711, wherein the predetermined condition is met when a deposition rate of the applicator arrangement falls below a predetermined rate.

20. 18. The handheld device of claim 1711, wherein the processing arrangement adjusts the predetermined threshold value to maintain a substantially constant deposition rate.