

CLAIMS

1. A method for the enhancement and/or stabilisation of the proteolytic activity of a protease, wherein the method comprises (i) contacting a protease with a reducing agent, wherein a cysteine residue of the protease is maintained in a reduced state, (ii) removing substantially all oxygen gas from the area surrounding the protease and (iii) combining the protease and an anionic polymer matrix such that the protease is non-covalently bound to the anionic polymer matrix.
2. The method of claim 1, wherein the protease is packaged in a substantially oxygen-free atmosphere.
3. A method for producing a composition comprising a protease with proteolytic activity that has been enhanced and/or stabilised, wherein the method comprises contacting a protease with a reducing agent, wherein a cysteine residue of the protease is maintained in a reduced state, (ii) removing substantially all oxygen gas from the area surrounding the protease and (iii) combining the protease and an anionic polymer matrix such that the protease is non-covalently bound to the anionic polymer matrix.
4. The method of claim 3, wherein the composition is packaged in a substantially oxygen-free atmosphere.
5. The method of any one of claims 1 to 4, wherein oxygen gas is removed by degassing the preparation.
6. The method of any one of claims 1 to 5, wherein the polymer is a carbomer.
7. A composition comprising one or more proteases with proteolytic activity that has been enhanced and/or stabilised, wherein the composition is obtained or obtainable by a method comprising (i) contacting a protease with a reducing agent, wherein a cysteine residue of the protease is maintained in a reduced state, (ii) removing substantially all oxygen gas from the area surrounding the protease and (iii) combining the protease and an anionic polymer matrix such that the protease is non-covalently bound to the anionic polymer matrix.
8. A composition comprising one or more proteases, a reducing agent and an anionic polymer matrix, wherein a cysteine residue of the protease is maintained in a reduced state,

the composition is substantially oxygen free and the protease is non-covalently bound to the anionic polymer matrix.

9. The composition of either one of claims 7 or 8, wherein oxygen gas is removed by degassing the composition.

10. The composition of any one of claims 7 to 9, wherein the polymer is a carbomer.

11. The composition of any one of claims 7 to 10, wherein the composition is packaged in a substantially oxygen-free atmosphere.

12. Use of the composition of any one of claims 7 to 11 in the manufacture of a medicament for the treatment of diseases and disorders including wounds, for debridement, or for treating burns, ulcers or gangrene.

13. Use of the composition of any one of claims 7 to 11 in the manufacture of a cosmetic for lightening skin, exfoliation or for applying to wrinkles, skin blemishes, freckles, pimples, acne, rosacea, sun spots, scars or varicose veins, or for applying to dry, aged or damaged skin.

14. A pharmaceutical composition comprising the composition of any one of claims 7 to 11 together with a pharmaceutically acceptable carrier, diluent, excipient, surfactant and/or adjuvant.

15. A cosmetic composition comprising the composition of any one of claims 7 to 11 together with a cosmetically acceptable carrier, diluent, excipient, surfactant and/or adjuvant.

16. A composition according to any one of claims 7 to 11 or a pharmaceutical composition of claim 14, for use in the treatment of diseases and disorders including wounds, for debridement, or for treating burns, ulcers or gangrene.

17. The composition of claim 16, wherein the composition is applied topically.

18. A method for the treatment of diseases and disorders including wounds, for

debridement, or for treating burns, ulcers or gangrene, wherein the method comprises administering to a subject the composition of any one of claims 7 to 11 or the pharmaceutical composition of claim 14.

19. The method of claim 18, wherein the composition is applied topically.

20. A composition according to any one of claims 7 to 11 or a cosmetic composition of claim 15, for use in lightening skin, exfoliation or for applying to wrinkles, skin blemishes, freckles, pimples, acne, rosacea, sun spots, scars or varicose veins, or for applying to dry, aged or damaged skin.