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and/or from the pores of the at least one particulate earth alkali carbonate-comprising material and/or at least one particulate earth alkali phosphate-comprising material.

11. The process according to claim 10, wherein the washing step f) is carried out by contacting the at least one particulate earth alkali carbonate-comprising material and/or at least one particulate earth alkali phosphate-comprising material obtained in step c) or if present step e) with water, an organic solvent, an aqueous solution of at least one basic reacting salt, or at least one base.

12. The process according to claim 11, wherein the at least one basic reacting salt is Na_2CO_3 or Li_2CO_3 .

13. The process according to claim 10, wherein the at least one particulate earth alkali carbonate-comprising material and/or at least one particulate earth alkali phosphate-comprising material obtained in washing step f) is reused in process step b) as the at least one particulate earth alkali carbonate-comprising material and/or at least one particulate earth alkali phosphate-comprising material.

14. The process according to claim 11, wherein the at least one base is lithium hydroxide, sodium hydroxide, potassium hydroxide, calcium hydroxide, magnesium hydroxide, ammonia, ammonium hydroxide, organic amines or mixtures thereof.

15. The process according to claim 1, wherein the gaseous and/or aerosol or liquid medium comprises the one or more nitrogen oxide(s) in a total amount of up to 700 ppm, based on the total volume of the gaseous and/or aerosol or liquid medium.

16. The process according to claim 1, wherein the gaseous and/or aerosol or liquid medium comprises the one or more nitrogen oxide(s) in a total amount of ranging from 1 to 600 ppm, based on the total volume of the gaseous and/or aerosol or liquid medium.

17. The process according to claim 1, wherein the at least one particulate calcium carbonate-comprising material of step d) is at least one natural ground calcium carbonate (NGCC), and/or at least one precipitated calcium carbonate (PCC) having

- i) a volume median particle size d_{50} in the range of 60 nm to 400 μm , determined by the light scattering method, and/or
- ii) a BET specific surface area as measured by the BET nitrogen method in the range of 25 to 100 m^2/g , and/or

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- iii) a particle size distribution d_{98}/d_{50} in the range of 3.2 to 5.5, determined by the light scattering method.

18. The process according to claim 1, wherein the at least one particulate calcium carbonate-comprising material of step d) is at least one natural ground calcium carbonate (NGCC), and/or at least one precipitated calcium carbonate (PCC) having

- i) a volume median particle size d_{50} in the range of 40 nm to 2000 μm , determined by the light scattering method, and/or
- ii) a BET specific surface area as measured by the BET nitrogen method in the range of 15 to 175 m^2/g , and/or
- iii) a particle size distribution d_{98}/d_{50} of ≥ 3 , determined by the light scattering method.

19. The process according to claim 1, wherein the at least one particulate earth alkali carbonate-comprising material and/or at least one particulate earth alkali phosphate-comprising material of step b) is at least one surface-modified calcium carbonate (MCC) having

- i) a volume median particle size d_{50} in the range of 1.5 μm to 20 μm , determined by the light scattering method, and/or
- ii) a BET specific surface area as measured by the BET nitrogen method of from 30 to 160 m^2/g , and/or
- iii) a particle size distribution d_{98}/d_{50} in the range of 1.5 to 3, determined by the light scattering method, and/or
- iv) an intra-particle intruded specific pore volume in the range of 0.178 to 1.244 cm^3/g , calculated from a mercury intrusion porosimetry measurement.

20. The process according to claim 1, wherein the at least one particulate earth alkali carbonate-comprising material and/or at least one particulate earth alkali phosphate-comprising material of step b) is at least one surface-modified calcium carbonate (MCC) having

- i) a volume median particle size d_{50} in the range of 1 μm to 100 μm , determined by the light scattering method, and/or
- ii) a BET specific surface area as measured by the BET nitrogen method in the range of 15 to 200 m^2/g , and/or
- iii) a particle size distribution d_{98}/d_{50} of ≥ 1.3 , determined by the light scattering method, and/or
- iv) an intra-particle intruded specific pore volume in the range of 0.150 to 1.300 cm^3/g , calculated from a mercury intrusion porosimetry measurement.

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