

8. The method of claim 1 wherein said deposited self-supporting body is vitreous.

9. The method of claim 1 and including the step of heating said porous body to consolidate it into a non-porous vitreous body.

10. The method of claim 1 and including the steps of: leaching said porous body with acid; washing said porous body with water; drying said porous body; and heating said porous body to consolidate it into a non-porous vitreous body.

11. The method of claim 1 and including the step of doping said porous body.

12. A product made by the process of claim 1.

13. A product made by the process of claim 9.

14. The method of claim 1 wherein said first solution contains an additive.

15. The method of claim 1 wherein said second solution contains an additive.

16. The method of claim 1 wherein said first and second solutions contain additives.

17. The method of claim 1 and including the step of varying the rate of deposition of said self-supporting body.

18. The method of claim 1 and including the step of varying the rate of reaction by varying the concentrations of said solutions.

19. The method of claim 1 and including the step of varying the rate of reaction by varying the temperature of said solutions.

20. The method of claim 1 and including the step of varying the rate of reaction by varying the relative pressures of said solutions.

21. The method of claim 1 and including the step of varying the porosity and pore size of said self-supporting body by varying the concentrations of said first and second solutions.

22. The method of claim 1 and including the step of varying the porosity and pore size of said self-supporting body by varying the concentration of said first solution.

23. The method of claim 1 and including the step of varying the porosity and pore size of said self-supporting body by varying the concentration of said second solution.

24. The method of claim 1 wherein the concentration of said first solution is such that one liter of said first solution contains from 0.10 moles to 40 moles of at least one glass forming oxide.

25. The method of claim 1 wherein the solvents for said first and second solutions are selected from the

group consisting of water, hydrocarbons, alcohols, ketones, ethers, carboxylic acids and mixtures thereof.

26. The method of claim 1 wherein said at least one basic solute is a simple solute consisting of two oxides.

27. The method of claim 1 wherein said at least one basic solute is a complex solute consisting of more than two oxides.

28. The method of claim 1 wherein said at least one acidic solute is a salt of a strong acid and a weak base.

29. The method of claim 1 wherein said at least one basic solute is selected from the group consisting of silicates and germanates.

30. The method of claim 1 wherein said barrier is in the form of a container with said first solution on the inside of said container and said second solution on the outside of said container.

31. The method of claim 1 wherein said barrier is in the form of a shaped article whereby said porous self-supporting body conforms to the shape of said barrier.

32. A product made by the process of claim 31.

33. The method of claim 1 and including the step of changing the compositions and said first solution and said second solution during deposition of said self-supporting body to develop in said body, layers of different composition.

34. The method of claim 1 and including the step of changing the composition of said first solution during deposition of said self-supporting body to develop in said body, layers of different composition.

35. The method of claim 1 and including the step of changing the composition of said second solution during deposition of said self-supporting body to develop in said body, layers of different composition.

36. The method of claim 1 and including the step of continuously varying the composition of said first solution and said second solution during deposition of said self-supporting body to develop in said body a continuous variation in composition.

37. The method of claim 1 and including the step of continuously varying the composition of said first solution during deposition of said self-supporting body to develop in said body a continuous variation in composition.

38. The method of claim 1 and including the step of continuously varying the composition of said second solution during deposition of said self-supporting body to develop in said body a continuous variation in composition.

39. The method of claim 1 and including the step of varying the time during which said solutions are in contact with said barrier so as to develop a certain composition profile for said porous self-supporting body.

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