18. A method of claim 17, including carrying out said substantially simultaneous cross-linking reaction and gel formation at pH values of 8 to 14.

19. A method of claim 17, including carrying out said substantially simultaneous cross-linking reaction and gel formation at temperatures of 4° to 65° C.

20. A method of claim 17, including carrying out said substantially simultaneous cross-linking reaction and gel formation for about 15 minutes to 5 days.

21. A method according to claim 16, including carrying out said substantially simultaneous cross-linking reaction and gel formation in a solvent consisting essentially of water.

22. A method according to claim 16, including carrying out said substantially simultaneous cross-linking reaction and gel formation in a solvent comprising a mixture of water and an organic solvent.

23. A method according to claim 1, further including fixing said gel to a support.

24. The method as claimed in claim 1 wherein said aqueous solvent consists essentially of water.

25. The method as claimed in claim 1 wherein said polymer of said composition comprises a member selected from the group consisting of hydroxyethyl cellulose, agar, agarose, gellan, pullulan, starch, dextran and a mixture of a linear polysaccharide with one member selected from the group consisting of polyvinyl alcohol and polyhydroxyethyl methacrylate.

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