The technical problem underlying the present invention can be regarded as the provision of means and methods for complying with the aforementioned needs. The said technical problem is solved by the embodiments characterized in the claims and herein below.

Accordingly, the present ~~invention~~ application relates to a diagnostic test element for determining an analyte comprised in a body fluid sample, said test element comprising at least one test field with at least one detection layer and at least one separation layer, wherein said at least one separation layer comprises dispersion-saturated solid components and SiO_2 in an amount of about 1.0 to 1.6 g/m^2. In one aspect, there is provided a diagnostic test element for determining an analyte comprised in a body fluid sample, said test element comprising at least one test field with at least one detection layer and at least one separation layer, wherein said at least one separation layer SiO_2 in an amount of about 1.0 to 1.6 g/m^2 and dispersion-saturated solid components, wherein said dispersion-saturated solid components have been obtained by dispersing the solid components in a costing composition forming the separation layer until a maximum is reached such that no further increase in the amount of dispersed solid components can be observed (plateau stage).

In another aspect, there is provided a coating composition being capable of forming a separation layer on a diagnostic test element as described herein.

In another aspect, there is provided a method for the manufacture of a diagnostic test element as described herein comprising dispersing solid components for the separation layer in a coating composition until a maximum is reached such that no further increase in dispersed solid components occurs (plateau stage), wherein said coating composition comprises silicic acid in an amount of about 2.0 g to 3.5 g per 100 g coating composition.

In another aspect, there is provided use of the diagnostic test element as described herein for determining the amount of an analyte, preferably, glucose, in a sample of a subject.

The term "diagnostic test element" as used herein refers to a device comprising at least one test field for sample application and analysis. Accordingly, the said test field comprises reagents for analyzing a sample for the presence or absence of the analyte. Typically, such reagents comprise one or more detection agents which recognize the presence of the analyte in an applied sample and which are adapted to go through at least one detectable change of a physical and/or, chemical property in the presence of the analyte to be determined. Typically, optical chances are elicited in the presence of the analyte although other changes such as chemical changes or electrochemical changes are also conceivable.

Details on the principles underlying such test elements and the manufacture thereof can be found in DE 196 29 657 A1, DE 196 29 656 A1, or EP 0 821 234 B1 which are herewith incorporated by reference. Further test elements envisaged in accordance with the present invention are those disclosed in EP 1 035 919 B1 or EP 1 035 920 B1, the respective disclosure content of which is herewith incorporated by reference. The layers of the diagnostic test element according to the invention are, in an aspect, film layers and are produced from dispersions or emulsions of polymeric film formers. Dispersion film formers contain microscopic polymer particles which are insoluble in the carrier liquid (usually water) and are finely dispersed in the carrier liquid. If the liquid is removed by evaporation during film formation then the particles come closer and finely touch one another. The large forces which occur in this process and the gain in surface energy which accompanies the film formation result in the particles growing into a substantially closed film layer. Alternatively it is also possible to use an emulsion of the film former in which this is dissolved in a solvent. The dissolved polymer is emulsified in a carrier liquid which is immiscible with the solvent. Polyvinyl esters, polyvinyl acetates, polyacrylic esters, polymethacrylic acid, polyvinyl amides, polyamides and polystyrene are particularly suitable as polymers for such film formers. In addition to homopolymers mixed polymerizates are also suitable such as of butadiene, styrene or maleic acid ester.