What is claimed is:

1. A homogenous sample of identical bispecific antibody determinants, each said determinant comprising two L-H half-molecules linked by disulfide bonds, each said L-H half-molecule being specific for a different antigenic determinant, and comprising at least the F(ab') portion of a monoclonal IgG antibody,

one said antigenic determinant comprising an antigenic site on a solid matrix, whereby said bispecific antibody determinant is capable of being immobilized on said solid matrix by binding to said matrix at said antigenic site,

said sample comprising a multilamellar assembly wherein

said antigenic site on said matrix is a site on a haptenic molecule attached to said matrix,

said bispecific antibody determinant is bonded to said haptenic molecule,

the other said antigenic determinant comprises a first antigenic site on a first protein molecule, said bispecific antibody determinant being bonded to said protein molecule, and

there is bonded to said first protein molecule, at a second antigenic site on said protein molecule, a second bispecific antibody determinant different from the determinant bonded to said haptenic molecule, each said second determinant comprising two L-H half molecules linked by disulfide bonds, each said L-H half molecule being specific for a different antigenic determinant, one said antigenic determinant being a second antigenic site on said first protein molecule, each said half-molecule comprising at least the F(ab') portion of a monoclonal IgG antibody.

2. The assembly of claim 1 wherein the other said antigenic determinant for which said second bispecific antibody determinant is specific is an antigenic site on a second protein molecule.

3. The assembly of claim 2 wherein each said first and second protein is an enzyme.

4. The assembly of claim 3 wherein

said assembly is useful for the measurement of a substance, and

said enzymes participate in a series of reactions which result in the production, from said substance, of a measurable effect which is a measure of said substance.

5. Electrode apparatus for the measurement in a sample of an unknown amount of a substance which is acted on by one or more enzymes to evolve a measurable ion or compound, said ion or compound evolved being a measure of said unknown substance, said electrode apparatus comprising

means for measuring said measurable ion or compound, and,

associated with said means for measuring said measurable ion or compound, a membrane having associated therewith a plurality of molecules of each said enzyme which acts on said substance to be measured and, bonded to the molecules of each said enzyme, a plurality of identical, bispecific antibody determinants, each said determinant comprising two L-H half-molecules linked by disulfide bonds, each said half-molecule being different from the other and comprising at least the F(ab') portion of a monoclonal IgG antibody, one said L-H half-molecule being specific for an antigenic site on the enzyme molecule to which it is bonded, the other half-molecule being specific for an antigenic determinant on said membrane, said bispecific antibody determinant being bonded thereto,

wherein said substance to be measured is acted on by more than one enzyme, and

the molecules of at least one of said enzymes are bonded to half-molecule of each of two different said bispecific antibody determinants at two different antigenic sites on said enzyme molecules.

6. Electrode apparatus for the measurement in a sample of an unknown amount of a substance which is acted on by one or more enzymes to evolve a measurable ion or compound, said ion or compound evolved being a measure of said unknown substance, said electrode apparatus comprising

means for measuring said measurable ion or compound, and,

associated with said means for measuring said measurable ion or compound, a membrane having associated therewith a plurality of molecules of each said enzyme which acts on said substance to be measured and, bonded to the molecules of each said enzyme, a plurality of identical, bispecific antibody determinants, each said determinant comprising two L-H half-molecules linked by disulfide bonds, each said half-molecule being different from the other and comprising at least the F(ab') portion of a monoclonal IgG antibody, one said L-H half-molecule being specific for an antigenic site on the enzyme molecule to which it is bonded, the other half-molecule being specific for an antigenic determinant on said membrane, said bispecific antibody determinant being bonded thereto,

wherein said substance to be measured is lactose,

said enzymes are β-galactosidase and glucose oxidase, and

said measurable compound is oxygen,

wherein the molecules of said glucose oxidase are bonded to two different said bispecific antibody determinants at two different antigenic sites on said glucose oxidase molecules.

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