

Title (en)

METHOD FOR PREPARING ANISOTROPIC SILICA AGGREGATES

Title (de)

VERFAHREN ZUR HERSTELLUNG VON ANISOTROPEN SILICIUMOXIDAGGREGATEN

Title (fr)

PROCEDE DE PREPARATION D AGREGATS ANISOTROPES DE SILICE

Publication

EP 1648823 A2 20060426 (FR)

Application

EP 04767598 A 20040707

Priority

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Abstract (en)

[origin: FR2857351A1] Anisotropic aggregates of silica are obtained by: (a) mixing certain polymers with non-aggregated silica particles or sols at pH 7 or above in the absence of added salts; and (b) consolidating the aggregate by heating or by precipitation with a mineral compound. A method for the production of anisotropic aggregates of silica involves: (a) mixing polymer(s) with silica particles which are non-aggregated and/or highly dispersed in aqueous media, at the rate of 0.02-2 mg polymer per m² silica particle surface, the value of the electrostatic charge on the silica surface being greater than or equal to that on the surface of silica particles in an aqueous phase in the absence of added salts at pH 7 or above; and (b) consolidating the resulting aggregate by thermal treatment or by precipitation with a mineral compound. Independent claims are included for: (1) products obtained by this method; and (2) silica aggregates comprising a combination of 5-15 primary particles, at least 80% of which are in contact with at most 2 other particles, and in which the greatest measurable distance between two points on the aggregate is not more than 5 times the average primary particle size.

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