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[Continued on next page]

(54) Title: NOVEL CROSSLINKED POLYMERIC SUBSTRATES METHODS OF PREPARATION AND END USE APPLICATIONS OF THE SUBSTRATES

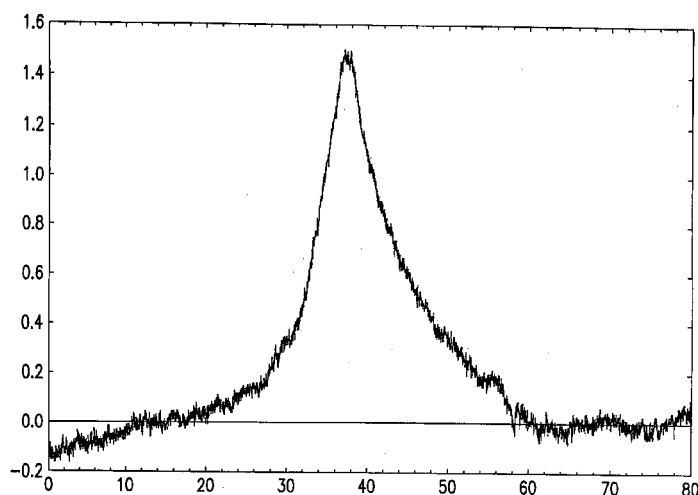


FIG. 1

(57) Abstract: A composition of matter wherein the composition comprises a siliceous substrate having silanols on the surface and a polymer selected from the group consisting essentially of a water soluble polymer, a water soluble copolymer, an alcohol soluble polymer, an alcohol soluble copolymer, and combinations of such polymers, wherein the polymer is chemically bonded to the siliceous substrate by a silane linking material having the general formula  $O_{3/2}SiQY$  that is derived from an alkoxy-functional silane having the general formula  $(RO)_3SiQX$  and processes for preparing the crosslinked polymer that is chemically bonded to the surface of the siliceous substrate.



- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
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