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(71) Applicant: **INTERNATIONAL BUSINESS MACHINES CORPORATION** [US/US]; New Orchard Road, Armonk, NY 10504 (US).

(71) Applicant *(for MG only)*: **IBM UNITED KINGDOM LIMITED** [GB/GB]; PO Box 41, North Harbour, Portsmouth, Hampshire PO6 3AU (GB).

(72) Inventors: **JENSEN, Terry, Lee**; 4506 21st Avenue N.W., Rochester, MN 55901 (US). **MARIER, John, William**; 3315 County Road 150 S.W., Byron, MN 55920 (US). **PILTINGSRUD, Douglas, Howard**; 12304 County Road 129 S.E., Eyota, MN 55934 (US). **SPRAGUE, Rick, Allan**; 3970 The Woods #1309, San Jose, CA 95136 (US).

(74) Agent: **FOURNIER, Kevin, John**; IBM United Kingdom Limited, Intellectual Property Law, Hursley Park, Winchester, Hampshire SO21 2JN (GB).

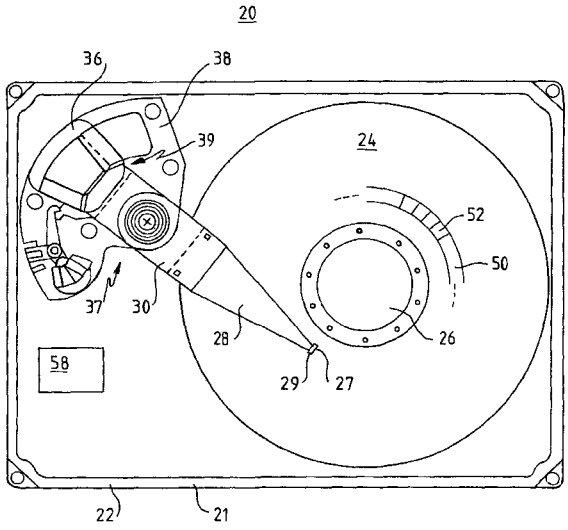
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(54) Title: PH ADJUSTMENT OF A MELT FOR USE IN MICROETCHING GLASS SUBSTRATES



(57) Abstract: A method of adjusting the pH of a strengthening melt to provide an adjusted melt for use in microetching glass substrates, such as glass disk substrates for use in data storage devices. A base is added to the strengthening melt to raise its pH. A desired degree of microetch is provided on an aluminosilicate glass disk substrate, for example, by immersion for 2-4 hours at 360°C in a melt adjusted to have a pH of 10. This single operation both strengthens and microetches the glass substrate. A slight etching of the surface of a glass substrate, i.e., microetching, improves the performance and durability of a data storage disk made from the substrate. To avoid an overly aggressive etch that can create undesirable damage to the substrate surface, an acid may be added to the melt if the pH is subsequently determined to have shifted to above an upper limit.

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