

[0057] [Table 1]

	pH of solution	Change in Ra (Å)	Change in SNR (db)	Evaluation
Work. Ex. 1	6.5	0.45	-0.17	B
Work. Ex. 2	7	0.24	-0.10	A
Work. Ex. 3	8.5	0.33	-0.14	B
Comp. Ex. 1	9	0.48	-0.33	D
Comp. Ex. 2	6	0.81	-0.37	D
Comp. Ex. 3	10.5	0.65	-0.41	D

[0058] "A", "B", "C", and "D" described below were used as evaluation criteria for Table 1 above. "A" shows that the change in SNR is -0.1 db or lessmore.

5 "B" shows that the change in SNR is -0.11 to -0.20 db. "C" shows that the change in SNR is -0.21 to -0.30 db. "D" shows that the change in SNR is -0.31 db or less.

[0059] Regarding the comparative example 1, the change in Ra was small, but Ra after the immersing step increased, and some nonstandard glass substrates were produced. Regarding the comparative example 3 as well, Ra after the
10 immersing step was similarly deteriorated. It is understood from Table 1 that the pH of the solution used in the first immersing step is preferably 6.5 or more to 8.5 or less. It is understood that the pH of the solution used in the first immersing step is preferably 7 or more to 8 or less.

15 [0060] Next, the relationship of the pH of the solution used in "the second immersing step" of S21 described above with the change in SNR and the change in Ra was examined. Specifically, after the ultrasonic cleaning of S20 was performed on the glass substrate that had been immersed in a solution at pH 7 for 10 minutes in "the first immersing step" of S19, the glass substrates were
20 immersed in solutions at various pH ("the second immersing step" of S21). Thereafter, glass substrates according to working examples A, B, and C described below were produced by performing "the scrub cleaning step" of S22 and "the final cleaning step" of S24.

[0061] [Table 2]

	pH of solution	Change in Ra (Å)	Change in SNR (db)	Evaluation
Work. Ex. A	6.5	0.2	-0.07	AA
Work. Ex. B	7	0.15	-0.04	AA
Work. Ex. C	8.5	0.17	-0.08	AA

[0062] Table 2 above shows the results of measuring the changes in SNR (db) and the changes in Ra of the glass substrates according to the working examples A, B, and C in the same manner as in the above-described working examples 1 to 3 and comparative examples 1 to 3. "AA", "BB", "CC", and "DD" described below were used as evaluation criteria. "AA" shows that the change in SNR is -0.1 db or less more. "BB" shows that the change in SNR is -0.11 to -0.20 db. "CC" shows that the change in SNR is -0.21 to -0.30 db. "DD" shows that the change in SNR is -0.31 db or less.

[0063] As is also clear from Table 2 above, it is understood that, with the glass substrate obtained by performing the ultrasonic cleaning of S20 on a glass substrate that has been immersed in a solution at pH 7 for 10 minutes in "the first immersing step" of S19, immersing the glass substrate in a solution at pH 6.5 or more to 8.5 or less for 10 minutes, and performing "scrub cleaning step" of S22 and "the final cleaning step" of S24 thereon, an information recording medium having favorable electromagnetic conversion characteristics can be obtained.

[0064] Next, the relationship of the pH of the solution used in "the third immersing step" with the change in SNR and the change in Ra was examined. Specifically, after "the first immersing step (S19)" in which immersion in a solution at pH 7 for 10 minutes is performed, "the ultrasonic cleaning step (S20)", "the second immersing step (S21)" in which immersion in a solution at pH 7 for 10 minutes is performed, and "the scrub cleaning step (S22)" were performed, the glass substrates were immersed in solutions at various pH ("the third immersing step (S23)". Thereafter, glass substrates according to

working examples a, b, and c described below were produced by performing "the final cleaning step (S24)". Table 3 below shows the results of measuring the changes in SNR (db) and the changes in Ra of the glass substrates according to the working examples a, b, and c in the same manner as in the above-described working examples 1 to 3 and comparative examples 1 to 3.

[0065] [Table 3]

	pH of solution	Change in Ra (Å)	Change in SNR (db)	Evaluation
Work. Ex. a	6.5	0.2	0.01	AAA
Work. Ex. b	7	0.1	0.03	AAA
Work. Ex. c	8.5	0.14	0.01	AAA

[0066] "AAA", "BBB", "CCC", "DDD" and "EEE" were used as evaluation criteria. "AAA" shows that the change in SNR is positive. "BBB" shows that the change in SNR is 0 to -0.1 db. "CCC" shows that the change in SNR is -0.11 to -0.20 db. "DDD" shows that the change in SNR is -0.21 to -0.30 db. "EEE" shows that the change in SNR is -0.31 db or less. The term "positive" means that the S/N ratio was improved compared with that of the reference.

[0067] As is also clear from Table 3 above, it is understood that an information recording medium having favorable electromagnetic conversion characteristics can be obtained from all of the working examples a, b, and c.

[0068] As shown in Tables 1 to 3 above, by providing an immersing step using a solution at predetermined pH, it is possible to suppress a decrease in SNR. In particular, in the case where an immersing step is provided after a step in which physical stimulation is applied, such as a polishing step and/or a scrub cleaning step, a greater effect is exhibited.

[0069] Next, the relationship of the length of time of immersion in a solution with the change in Ra (Å) and the change in SNR (db) was examined.

[0070] Specifically, the glass substrate on which "the second polishing step (precision polishing step)" of S18 shown in FIG. 3 had been performed was immersed in a solution at pH 7 ("the first immersing step") with the period of