

(12) **United States Patent**
Harada

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(54) **HEAT TREATMENT METHOD FOR SYNTHETIC QUARTZ GLASS**
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(57) **ABSTRACT**

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CPC **C03B 32/00** (2013.01); **C03B 19/066** (2013.01); **C03B 19/1453** (2013.01); **C03B 25/00** (2013.01)

[Problem]
The provision of a synthetic quartz glass heat treatment method that can, by a single heat treatment, and without particular limitations on the OH group concentration distribution of the starting material, regulate the birefringence fast axis direction in the synthetic quartz glass after it has been heat-treated.

(58) **Field of Classification Search**
CPC C03B 27/00; C03B 25/00; C03B 25/08; C03B 27/065; C03B 19/1453; C03B 19/066
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See application file for complete search history.

[Means of overcoming the problem]
A heat treatment method for synthetic quartz glass whereby columnar synthetic quartz glass having two opposing end faces and a lateral face is heat-treated covered with thermal insulator; wherein said heat treatment is performed using as end face thermal insulator which covers said two end faces, and as lateral face thermal insulator which covers said lateral face, thermal insulators that differ in at least either type or thickness to afford different thermal insulation effects such that the birefringence fast axis direction of said synthetic quartz glass is regulated.

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9 Claims, 10 Drawing Sheets

