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**Tamura et al.**

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(54) **OPTICAL-FIBER PREFORM AND METHOD FOR MANUFACTURING OPTICAL-FIBER PREFORM**

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See application file for complete search history.

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(57) **ABSTRACT**

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An optical fiber preform which can be drawn into a low attenuation optical fiber is provided with a core portion and a cladding portion surrounding the core portion. The core portion includes a first core portion and a second core portion surrounding the first core portion. The cladding portion includes a first cladding portion surrounding the second core portion and a second cladding portion surrounding the first cladding portion. The first core portion contains an alkali metal element, the concentration of oxygen molecules contained in glass is 30 mol ppb or more and 200 mol ppb or less in a part of or entire region having an alkali metal atom concentration of 100 atomic ppm or more, and the concentration of oxygen molecules contained in glass is 10 mol ppb or less in a region having an alkali metal atom concentration of 50 atomic ppm or less.

(52) **U.S. Cl.**

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(58) **Field of Classification Search**

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