WHAT IS CLAIMED IS:

1. A method for inhibiting light-induced degradation of a photovoltaic device made from a boron-doped, oxygen containing silicon substrate ~~or a boron-gallium-doped, oxygen containing silicon substrate each having an annealing temperature~~, comprising steps of:

a) subjecting the photovoltaic device to an illumination treatment using a light having a wavelength not less than 300 nm to heat the photovoltaic device in the absence of ambient light; and

b) maintaining the temperature of the photovoltaic device above an ~~the~~ annealing temperature of 230℃ ~~the boron-doped, oxygen containing silicon substrate or the boron-gallium-doped, oxygen containing silicon substrate~~ for at least 0.5 minute.

2. The method according to Claim 1, wherein the temperature of the photovoltaic device is maintained below 600°C.

3. The method according to Claim 2, wherein the step of maintaining is aided by a thermal-conditioning.

4. The method according to Claim 3, wherein the thermal-conditioning is implemented by thermal-heating, cooling, or a combination thereof.

5. The method according to Claim 1, further comprising using a sensor to detect the temperature of the photovoltaic device when the step b) is performed.

~~6. The method according to Claim 1, wherein the~~

~~photovoltaic device is made of the boron-doped, oxygen containing silicon substrate, and the annealing temperature is 230°C.~~

~~7~~6. The method according to Claim ~~6~~1, wherein the temperature of the photovoltaic device is maintained within a range from 230°C to 577°C.

~~8~~7. The method according to Claim ~~6~~1, wherein the light for the illumination treatment has a wavelength ranging from 450 nm to 1000 nm.

~~9~~8. The method according to Claim 1, wherein the photovoltaic device includes a light-illuminated surface having a light intensity of at least 0.5 Sun.

~~10~~9. The method according to Claim 9, wherein the light intensity ranges from 0.9 Sun to 5 Sun.

10~~11~~. The method according to Claim 1, wherein the light for the illumination treatment is emitted from an infrared lamp, a halogen lamp, a semiconductor light-emitting device, an organic light-emitting device, or combinations thereof.

WHAT IS CLAIMED IS:

1. A method for inhibiting light-induced degradation of a photovoltaic device made from a boron-doped, oxygen containing silicon substrate, comprising steps of:

a) subjecting the photovoltaic device to an illumination treatment using a light having a wavelength not less than 300 nm to heat the photovoltaic device in the absence of ambient light; and

b) maintaining the temperature of the photovoltaic device above an annealing temperature of 230℃ for at least 0.5 minute.

2. The method according to Claim 1, wherein the temperature of the photovoltaic device is maintained below 600°C.

3. The method according to Claim 2, wherein the step of maintaining is aided by a thermal-conditioning.

4. The method according to Claim 3, wherein the thermal-conditioning is implemented by thermal-heating, cooling, or a combination thereof.

5. The method according to Claim 1, further comprising using a sensor to detect the temperature of the photovoltaic device when the step b) is performed.

6. The method according to Claim 1, wherein the temperature of the photovoltaic device is maintained within a range from 230°C to 577°C.

7. The method according to Claim 1, wherein the light

for the illumination treatment has a wavelength ranging from 450 nm to 1000 nm.

8. The method according to Claim 1, wherein the photovoltaic device includes a light-illuminated surface having a light intensity of at least 0.5 Sun.

9. The method according to Claim 9, wherein the light intensity ranges from 0.9 Sun to 5 Sun.

10. The method according to Claim 1, wherein the light for the illumination treatment is emitted from an infrared lamp, a halogen lamp, a semiconductor light-emitting device, an organic light-emitting device, or combinations thereof.