CLAIMS

1. A method of manufacturing a solar cell, the method comprising, in the order:

   forming a tunnel oxide ~~(52)~~ over, at least, one surface ~~(503)~~ of a semiconductor substrate ~~(50)~~;

   forming a layer ~~(54)~~ doped with a first-type conductive dopant over the tunnel oxide;

   forming a mask ~~(56)~~ on the doped layer; and

   performing, in a gas atmosphere ~~(62)~~ containing a second-type conductive dopant, doping at least one first region ~~(542, 66)~~ of the doped layer using a laser.

2. ~~A~~ The method according to claim 1, comprising forming trenches ~~(60)~~ extending in the mask ~~(56)~~, the tunnel oxide ~~(52)~~ and the doped layer ~~(54)~~, after the formation of the mask.

3. The method according to claim 2, wherein the trenches ~~(60)~~ separate the first regions ~~(542, 66)~~ of the doped layer from second regions ~~(541)~~ of the doped layer.

4. The method according to claim 2 or 3, comprising forming a passivation film ~~(72)~~ over the doped layer ~~(54)~~, the passivation layer recovering the inside of trenches ~~(20)~~.

5. The method according to any of claims 1 to 4, wherein the gas includes phosphoryl chloride.

6. The method according to any of claims 1 to 5, comprising texturing of the semiconductor substrate ~~(50)~~ on another surface ~~(501)~~.

7. An IBC solar cell obtained by the method according to anyone of claims 1 to 6.

8. A solar panel comprising IBC solar cells according to claim 7.