**CLAIMS**

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

   forming a tunnel oxide over, at least, one surface of a semiconductor substrate;

   forming a first layer doped with a first-type conductive dopant over the tunnel oxide;

   forming a mask on the first doped layer;

   forming a second layer doped with a second-type conductive dopant over the mask; and

   doping at least one first region of the first doped layer using a laser, through the second layer doped with the second-type conductive dopant.

2. The method according to claim 1, comprising forming trenches extending in the second layer, the mask, the first doped layer and the tunnel oxide after the formation of the second layer.

3. The method according to claim 2, wherein trenches separate the first region of the first doped layer from second regions of the first doped layer.

4. The method according to any of claims 2 or 3, comprising forming a passivation film over the first doped layer, the passivation layer recovering the inside of trenches.

5. The method according to any of claims 1 to 4, comprising texturing of the semiconductor substrate on another surface.

6. An IBC solar cell obtained by the method according to anyone of claims 1 to 5.

7. A solar panel comprising IBC solar cells according to claim 6.