

Abstract**Monocrystalline semiconductor wafer and method for producing a semiconductor wafer**

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The invention relates to a monocrystalline semiconductor wafer having an average roughness R_a of at most 0.8 nm at a limiting wavelength of 250 μm , characterized by an $\text{ESFQR}_{\text{avg}}$ of 8 nm or less given an edge exclusion of 1 mm.

10 The invention also relates to a method for producing a monocrystalline semiconductor wafer, comprising the following steps in the indicated order:

- simultaneous double-side polishing of the semiconductor wafer,
- local material-removing processing of at least one part of at least one side of the semiconductor wafer using a fluid jet which contains suspended hard substance
- 15 particles and which is directed onto a small region of the surface with the aid of a nozzle, wherein the nozzle is moved over that part of the surface which is to be treated in such a way that a predefined geometry parameter of the semiconductor wafer is improved, and
- polishing of the at least one surface of the semiconductor wafer.

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Drawing for the abstract: figure 1

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