

Abstract

Method for Simultaneously Slicing a Multiplicity of Wafers from a Cylindrical Workpiece

The invention relates to a method for simultaneously slicing a multiplicity of wafers from a substantially circular-cylindrical workpiece, in which the workpiece, connected to a sawing strip, and a wire gang of a wire saw execute a relative movement directed perpendicularly to the longitudinal axis of the workpiece with the aid of a forward feed device with a defined forward feed rate, by which the workpiece is guided through the wire gang and is thereby sliced into a multiplicity of wafers, wherein the forward feed rate is varied in the course of the method in such a way that:

- it has a value v_1 at a cutting depth of 50% of the workpiece diameter,
- next, with a value $v_2 \geq 1.15 \times v_1$, it passes through a local maximum,
- subsequently, at the time when the wire gang comes into contact with the sawing strip for the first time, it takes a value $v_3 < v_1$, and
- it is then increased to a $v_5 > v_3$ value.

Figure for the Abstract: Fig. 2