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Lithium tantalate and lithium niobate crystals for surface acoustic wave (SAW) device applications - Specifications and measuring methods

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Cristaux de tantalate de lithium et de niobate de lithium pour applications utilisant des dispositifs à ondes acoustiques de surface (OAS) - Spécifications et méthodes de mesure

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The text of this International Standard is based on the following documents:

Draft	Report on voting
49/1496/CDV	49/1517/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

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1 Scope

This document applies to lithium tantalate (LT) and lithium niobate (LN) crystals for surface acoustic wave devices, including the as-grown crystals and lumbered crystals.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
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3.1

as-grown crystal

synthetic crystal without any processing

3.2

crystal orientation

crystallization direction of the crystal

3.3

Curie temperature

T_c

temperature at which a ferroelectric material undergoes a structural phase transition to a state where spontaneous polarization vanishes

Note 1 to entry: The Curie temperature is measured by differential thermal analysis (DTA), differential scanning calorimetry (DSC), or dielectric measurement.

3.4

cylinder length

continuous geometric length which is greater than the minimum diameter of the corresponding specification in as-grown crystal

3.5

cylindricity

difference between the maximum and minimum dimensions of any vertical section of lumbered crystal

3.6

effective length

geometric length after the removal of internal defects and processing defects in the actual length of lumbered crystal