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Acoustoelectric Conversion Function: Properties and Computation

Outline

1. Definition of the Acoustoelectric Conversion Function

- 1.1. Generalized wave amplitude and surface-wave potential
- 1.2. Acoustoelectric conversion in the quasi-static approximation

2. Unapodized Periodic SAW Transducers

- 2.1. Basic structure and guard electrodes
- 2.2. Contribution of the guard electrodes to the acoustoelectric conversion
- 2.3. Finger and gap taps
- 2.4. Element factor properties
- 2.5. Misusing finger taps

3. Apodized Periodic SAW Transducers

- 3.1. Basic assumptions
- 3.2. Generalization of the finger and gap taps