

Single-electron Devices



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Agenda

- Milestone
- Motivations
- New characteristics
- Single-electron transistor (SET)
- Challenges
- Conclusions

Milestone

- In 1909, Millikan first illustrated the manipulation of single electrons.
- In 1985, Dmitri Averin & Konstantin Likharev proposed single-electron transistor.
- In 1987, Theodore Fulton & Gerald Doald at Bell lab fabricated and demonstrated SET.