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An effective screened Coulomb interaction in a
quasi-one-dimensional system

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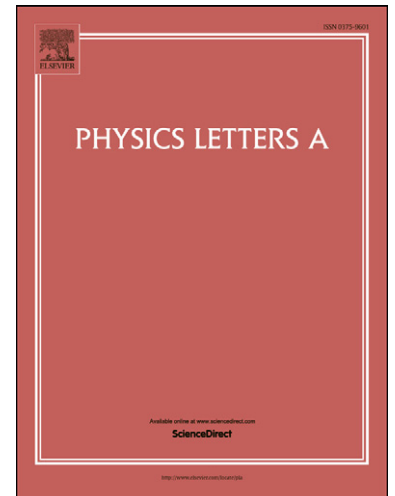
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Highlights

- We derived an effective screened Coulomb interaction in a model quantum wire.
- The screening effect on the binding energy of a neutral donor in a quantum wire has been studied.
- Dependence of screening length on temperature and carrier concentration has been discussed.

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