

Abstract Submitted
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Quantum Second Law with Entanglement¹ LADISLAV ANDREY,
Academy of Sciences, Prague — It is proved rigorously that every quantum operation generating quantum entanglement states in the multipartite quantum system of qubits leads to the reduction of quantum entropy of whole system. By other words the quantum entanglement can be the source of quantum information. As the consequence the novel formulation of quantum second law is presented with possible applications to progressively developing quantum information science and quantum communications.

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