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## Quantum theory of radiation-balanced generation

Andrianov S., Bochkarev V.

*Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia*

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### Abstract

Quantum statistical theory of radiation-balanced laser is constructed within method of nonequilibrium statistical operator. System of equations is derived for number of phonons and collective population difference. Their numerical solutions are obtained and discussed.

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### Keywords

Athermal laser, Kinetic equations, Nonequilibrium statistical operator, Radiation-balanced laser