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Title:Terahertz intracavity generation from output coupler consisting of stacked GaP plates

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Abstract:We demonstrate intracavity terahertz generation from an output coupler of a compact dual-frequency solid state laser. The output coupler consisting of unbonded and stacked GaP plates is used as a second-order nonlinear medium where the difference-frequency generation takes place. When quasi-phase matching is achieved within the alternatively rotated GaP plates, terahertz output power is significantly enhanced compared with that for the corresponding external-cavity configuration. © 2012 American Institute of Physics.

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