

Gravitational Hertz experiment in dielectrics, excited by intense laser pulses.

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The possibility of generating and detecting high-frequency gravitational waves based on parametric optical processes in dielectric media at their excitation by intense laser radiation of visible or ultraviolet ranges is analyzed. The theory predicts the feasibility of the Hertz gravitational laboratory experiment in which the parametric conversion of intense laser pulses with frequency ω_0 to a gravitational wave with frequency $\omega_g=2\omega_0$ and the reverse process of gravitational radiation reconversion to optical radiation. Experiments have been fulfilled for observation of multifrequency Stimulated Raman Scattering and photon-biphoton conversion in dielectrics

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