Radiation From a Plasma Stimulated by Two Short Microwave Pulses at the Gyrofrequency and its Second Harmonic [+)]

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A magneto-plasma excited by two short microwave pulses is considered in the single particle approach. The first pulse is assumed to be at the electron gyrofrequency and the second at the second harmonic thereof, the time separation of the two pulses being τ . At a time τ after the second pulse there arises a radiation peak at the electron gyrofrequency, coming from the plasma. This radiation peak is due to the nonlinear interaction between the second pulse and the plasma. If other nonlinearities (energy dependent gyrofrequency or collision cross-section) are taken into account, further radiation maxima arise at times 3τ , 5τ etc after the second pulse.