

Optimized Single-Mode Cavity for Ceramics Sintering

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Abstract—In this paper, we present a novel method of optimization of a single-mode cavity used for sintering ceramics. The goal of the optimization is to *maximize* the electric energy stored in the dielectric and *minimize* spatial variations of tashis field in the domain occupied by the material. Results of simulations of two configurations are discussed.

up to higher frequencies, but this solution is probably not economically feasible [1], [2].

An alternative altogether is to turn to single-mode cavities where there is much more control over the field distribution inside the cavity and there is the additional advantage of being able to optimize the geometry of the cavity to fit the parameters