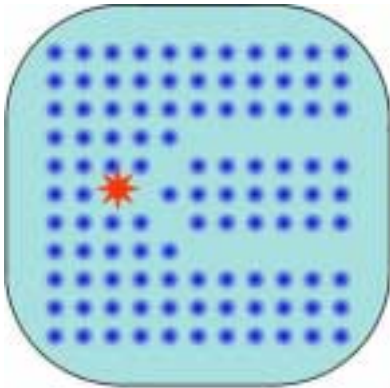


Photonic Crystals



As a photonic crystal a rectangular body has been taken with the defects represented by the metallic rods, located inside it. The excitation is applied at the arbitrary point inside the crystal and is simulated by the cylindrical wire. The numerical solution of the corresponding electrodynamic problem is fulfilled using MAS. By means of the created software several numerical results have been obtained, demonstrating the ability of such structure to serve as a core elements in complicated optical and SHF devices, as well as the capabilities of the software to analyze and simulate different configurations – to avoid expensive experimental development.

Crystals as Dividers

Each crystal has its own resonance frequencies, which can be determined by means of the far zone radiated field versus frequency. So, the peaks correspond to the resonance conditions, at which one can control the beams. Fig. 1, 2 3 show the implementation of a simple splitter that decomposes the input beam (at the certain frequency) into the two identical ones.

