

proposed arrangement built from alternating composite of (CuF/Si) and dielectric layers of silicon (Si) displays a better performance of SE by high reflection mechanism between the layers. Same time the temperature increase changes the reflection loss to lower level. In room temperature the composites show better SE properties than elevated temperatures. The increase in volume fraction increased the wave attenuation behavior of multi-layer composite. Therefore, in order to achieve the better shielding properties of composite materials the thermally insulative coating materials on shielding composites are to be applied to avoid temperature interruptions. These thermally non conductive shielding materials having the advantage of highly stable shielding effectiveness material in high temperature wave propagation application.

CONFLICT OF INTEREST

Herewith authors have confirmed that, this article have no conflict of interests.

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NOMENCLATURE

EMI	Electromagnetic interference
SE	Shielding effectiveness
HFSS	high-frequency structure simulator

Greek symbols

σ_c	Electrical conductivity of composite
σ_f	Electrical conductivity of fibre
σ_m	Electrical conductivity of matrix

Subscripts

T	temperature
A ₀	pre-exponential factor
CuF	Copper fiber