Abstracts

Tensor Character of Symmetrical Waveguide Junctions (Correspondence)

J.B. Knorr. "Tensor Character of Symmetrical Waveguide Junctions (Correspondence)." 1971 Transactions on Microwave Theory and Techniques 19.4 (Apr. 1971 [T-MTT]): 414-415.

The elements of the scattering matrix of a symmetrical waveguide junction are shown to transform in such a way that they may be treated as a tensorial set. When properly arranged, these elements carry the direct product representation {D(R) X D(R)} of the symmetry group of the junction. The number of independent elements in the scattering matrix is then determined by the number of times that the identity representation is contained in the direct product representation.

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