Abstracts

Microwave Reflection at an Active Surface Imbedded with Fast-Ion Conductors (Short Papers)

P.S. Neelakanta, J. Abello and C. Gu. "Microwave Reflection at an Active Surface Imbedded with Fast-Ion Conductors (Short Papers)." 1992 Transactions on Microwave Theory and Techniques 40.5 (May 1992 [T-MTT]): 1028-1030.

The microwave reflection characteristics at a surface of a composite medium comprised of thermally controllable, solid-electrolyte based active-zones are studied. These zones are energized (heated) reconfigurably so as to alter their electric conductivity, and hence their reflection/transmission characteristics. Experimental studies at X-band frequencies on a test active surface formed by a two dimensional array of AgI pellets (fast-ion conductors) imbedded in a dielectric medium are presented. Suitability of the proposed composite-medium for broadband applications is indicated.

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