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   Autore   Narayan Shiv

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   Nota di contenuto Introduction -- Finite Difference Time Domain Method -- Analysis of
                      EM Field Distribution inside Microwave Oven -- Modeling of Curved
                      Closed Cavity using FDTD -- Summary -- References -- Author Index
                      -- Subject Index.

   Sommario/riassunto This book deals with the EM analysis of closed microwave cavities
                      based on a three-dimensional FDTD method. The EM analysis is carried
                      out for (i) rectangular microwave ovens and (ii) hybrid-cylindrical
                      microwave autoclaves at 2.45 GHz. The field distribution is first
                      estimated inside domestic rectangular ovens in xy-, yz-, and zx-plane.
                      Further, the RF leakage from the oven door is determined to study the
                      effect of leakage radiation on wireless communication at 2.45 GHz.
                      Furthermore, the EM analysis of the autoclave is carried out based on
                      3D FDTD using staircase approximation. In order to show the capability
                      of autoclaves (excited with five source) for curing the aerospace
                      components and materials, the field distribution inside autoclave cavity
                      is studied in presence of aerospace samples. The FDTD based

modelling of oven and autoclave are explained with the appropriate expressions and illustrations.