

Abstracts

Use of the TEM Mode in Microwave Heating Applicators (Short Papers)

D.A. Johnston and WA.G. Voss. "Use of the TEM Mode in Microwave Heating Applicators (Short Papers)." 1972 Transactions on Microwave Theory and Techniques 20.8 (Aug. 1972 [T-MTT]): 547-549.

A combination of hot air and microwave heating is generally achieved by placing air knives alongside the waveguide applicators when drying web materials. If the air knife is placed inside the applicator, using it as the center conductor of a TEM structure, better or additional moisture removal may be achieved. The TEM mode also permits more control of the wave attenuation. Perturbation formulas are developed to compare conventional slotted waveguide applicators with two TEM systems. Experimental results are given. Improved uniformity of heating and lower leakage are indicated.

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