Abstracts

Vacuum electronics

R.K. Parker, R.H. Abrams, Jr., B.G. Danly and B. Levush. "Vacuum electronics." 2002 Transactions on Microwave Theory and Techniques 50.3 (Mar. 2002 [T-MTT] (50th Anniversary Issue)): 835-845.

This paper explores the recent history and diversity of this remarkable technology, with emphasis on recent advances in the more traditional device types (traveling-wave tube and klystron), as well as more recent innovations such as the microwave power module, inductive output amplifier, fast-wave devices, ultrahigh-power sources, and RF vacuum microelectronics. These advances can be credited to a combination of device innovation, enhanced understanding gained through improved modeling and design, the introduction of superior materials and sub-assembly components and the development of advanced vacuum processing and manufacturing techniques.

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