The Magnetization of the Single Polepiece Magnetic Electron Lens Using Different Coil Models

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ABSTRACT

New models of coil geometry are proposed to energize the single polepiece magnetic electron lens. Systematic studies have been applied to determine the magnetic and optical properties for a set of the lenses of identical parameters but each one is energized by different coil geometry. It has been found that the selection of the proper type of the coil geometry improves the performance of the magnetic single polepiece lens for equal value of the current density.