The basic equations of MHD, when applied to the stationary state of a plasma in a toroidal container whose tube cross-section is noncircular, are formulated, and the corresponding Grad-Shafranov-equations are written down for the geometry in question. The method of solution is discussed, and the stability problem is formulated. After these preparations, conclusions for the practical realizations of the internal cross-section are given. The nature of the discharge in this toroid and its stability is discussed.

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76X05 Ionized gas flow in electromagnetic fields; plasmic flow

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References:

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