

## **Experimental analytical study of parameters of a discharge positive column in mixture He - Hg**

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### **Abstract**

© Research India Publications. The article gives results of probe measurements of parameters of a discharge positive column in gas mixture He - Hg under medium pressures. For the same conditions the author calculated the function of electron distribution by velocities taking into account elastic and non-elastic collisions of electrons with gas mixture atoms and found average energy and drift velocity for electrons. Gas mixture parameters estimation results are compared with data obtained from the probe measurements. The article covers the case when the main component of a mixture is helium, and mercury is given in the form of a minor additive.

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### **Keywords**

Concentration, Distribution function, Elastic, Energy, Non-elastic, Probe methods, Temperature, Velocity