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| 五、数据记录：  组号： 19 ；姓名 吴艇     |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  | | 0.01 | 0.02 | 2.45 | 10.93 | 4.66 | 9 | | 0.88 | 0.61 | 2.49 | 11.31 | 4.71 | 11.31 | | 0.92 | 1.06 | 3.07 | 11.31 | 5.33 | 11.31 | | 0.96 | 1.5 | 3.12 | 10.16 | 5.5 | 11.31 | | 1.02 | 2.48 | 3.15 | 9.16 | 5.53 | 9.54 | | 1.07 | 3.2 | 3.18 | 8.18 | 5.56 | 8.08 | | 1.26 | 5.93 | 3.25 | 6 | 5.63 | 3.92 | | 1.36 | 7.04 | 3.28 | 5.18 | 5.68 | 4.2 | | 1.54 | 9.01 | 3.34 | 4.55 | 5.72 | 4.73 | | 1.64 | 9.71 | 3.39 | 5.18 | 5.77 | 6.06 | | 1.74 | 9.85 | 3.47 | 7.3 | 5.82 | 8.61 | | 1.86 | 9.47 | 3.52 | 9.53 | 5.87 | 11.31 | | 1.95 | 8.64 | 3.53 | 10.5 | 6.17 | 11.31 | | 2.02 | 7.63 | 3.58 | 11.31 | 6.77 | 11.31 | | 2.07 | 6.94 | 4.27 | 11.31 | 6.81 | 9.62 | | 2.11 | 6.32 | 4.29 | 10.61 | 6.85 | 8.07 | | 2.19 | 5.84 | 4.33 | 8.46 | 6.9 | 7.37 | | 2.24 | 6.21 | 4.43 | 4.5 | 6.97 | 8.2 | | 2.28 | 6.74 | 4.5 | 3.42 | 7.01 | 9.74 | | 2.36 | 8.6 | 4.55 | 4.33 | 7.06 | 11.31 | | 2.4 | 9.54 | 4.6 | 6.25 | 7.1 | 11.31 | |
| 六、数据处理  1.描绘-关系曲线  2.测量氩的第一激发电位  由图得六个峰值：，，，，，  由逐差法  相对误差 |
| 七、结果陈述：  1.-关系曲线中，图像峰值饱和了，这是由于调大了导致的。  2. 氩的第一激发电位与理论值11.61V有差距，这是由于这个第一电位是由图像峰值计算得来，但是图像峰值没能很好的展现出来，所以这一部分存在误差。 |
| 八、实验总结与思考题  实验总结：  在本次实验中，在观察示波器由于自动挡扫描时调整参数需要一点时间让示波器显示正确，我没等到显示稳定就调到手动来记录数据，而导致图像峰值饱和了到后面记录时才发现。这也导致了后面在测量氩的第一激发电位时存在误差。  思考题：  1.第一峰对应的电压与第一激发电位是否一致？为什么？  不等于，一开始的增加是为了给电子克服减速电压（拒斥电压），此时电子能到达极板P，开始产生电流，然后继续增加，电流增加，当达到克服减速电压所要电压与第一激发电位之和时，电子和氩原子发生弹性碰撞，从而电流下降，所以两者关系应是第一峰对应的电压>氩原子第一及激发电位。  2.根据你测到的值，计算氩原子从第一激发态跃迁回基态时应该辐射多大波长的光？与公认值比较误差。  测量得氩原子第一激发电位：，，  查阅得：公认值，  相对误差 |
| 指导教师批阅意见： |
| 成绩评定：     |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **预习**  （20分） | **操作及记录**  （40分） | 数据处理20分 | 结果陈述实验总结10分 | 思考题  10分 | **报告整体**  **印 象** | **总分** | |  |  |  |  |  |  |  | |