Gas Flow Lab Report

Haoze Pang
1019521

Department of Physics and Astronomy
The University of Manchester

1 Introduction

In this experiment, the researcher try to determine the properties of Helium (He) and Argon (Ar) gas by measuring the pressure in a thin tube as gases flow through it.

There are two parts to this experiment. In the first part, the experimenter created laminar flow environment using a long tube, and determined the viscosity of both gases. From the viscosities of the gases, the experimenter then deduced several microscopic properties of He and Ar, using Kinetic Theory. In the second part of this experiment, the experimenter created molecular flow environment in a short tube. He then determined the pumping speed of He and Ar by measuring the pressure in the tube.

2 Theory

3 Methods

4 Data