

Investigation on the theory of the Brownian Motion

A short overview

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Introduction

Goal of this study

We aim at building a new theory for **random movement** of particles

- ▶ Bla bla
- ▶ Bla bla
- ▶ Bla bla

because **bla bla**.

Contents

1. On the movement of small particles in a stationnary liquid
 - a. System description
 - b. Movement equations
 - c. New framework for movement description

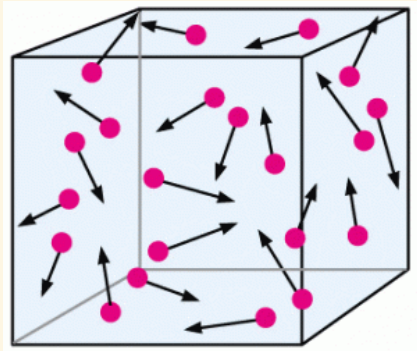
2. On the theory of Brownian Motion
 - a. Definitions
 - b. Main result
 - c. Consequences and perspectives

Part 1.

On the movement of small particles in a stationary liquid

System description

Particles in a stationary liquid



System representation

- ▶ Elementary particles
- ▶ Thermal agitation
- ▶ Random collisions

Part 2.

On the theory of Brownian Motion

Einstein's equations

Particles in a stationary liquid

Main result

For particles in a stationary liquid, we have:

$$\langle (\Delta x)^2 \rangle = \frac{RT}{N} \frac{1}{3\pi\mu a} \tau$$

Some interesting perspectives

Few insights

I think that

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- ▶ Bla bla bla
- ▶ Bla bla bla
- ▶ Bla bla bla

has to be further examined...