



Ice: A Summary of a Century-Old Problem

Chengqi Shi*

Department of Environmental Health, College of Health and Medical Sciences, Haramaya University, Haramaya, Ethiopia

ABSTRACT

This paper will comprehensively discuss the current progress and future research direction of this problem by summarizing the achievements of unremitting efforts of scientists and researchers for hundreds of years.

Keywords: Ice; Problem; Progress; Quasi-solid

INTRODUCTION

In the past thousand years, many non-scholars have noticed that the surface of ice is very slippery, which also gave birth to ice sports such as skating and ice hockey. Some scholars began to study this problem thousands of years ago, but there are always new theories [1]. Thousands of years ago, it was found that ice was slippery, but the literature could not know who discovered it [2].

DESCRIPTION

It will be some years before we really start to study this problem. Some people found that friction can generate heat, which is the reason why ice is so slippery. This was really put forward in an article developed by FP Bouden in 1939. After calculation in the article, it was finally concluded that 'the ice melted due to friction, resulting in the formation of a water layer, which made the ice so slippery' (it is worth mentioning that this scientist really went skiing for many days) [3]. Of course, some scholars have investigated this problem according to the liquid-solid equilibrium Chaperon equation, and formed a new conclusion, which was put forward by three scientists from 1850 to 1899. According to the equation,

they calculated that it was due to the surface of the skates. Of course, in 1859, Faraday put forward the hypothesis that there was a layer of water on the surface of ice. At that time, due to the limitation of equipment, it could not be verified in time. Around 1950, the era of science and technology flourished, and many new instruments were invented and created [4]. Finally, it was found that there was a layer of water on the surface of ice. This phenomenon was also named premating. However, in 2019, Canale and others proposed that the ice surface is not a layer of water, but an unknown film. After that, Daniel Born also proposed in 2019 that the ice surface is a mixture of ice particles and water. It is worth mentioning that this scholar used a huge fork to experiment, as shown in **Figure 1** [5].

Received:	09-April-2023	Manuscript No:	AASRFC-23-16112
Editor assigned:	11-April-2023	PreQC No:	AASRFC-23-16112 (PQ)
Reviewed:	25-April-2023	QC No:	AASRFC-23-16112
Revised:	09-January-2024	Manuscript No:	AASRFC-23-16112 (R)
Published:	16-January-2024	DOI:	10.36648/0976-8610.15.1.47

Corresponding author: Chengqi Shi, Department of Environmental Health, College of Health and Medical Sciences, Haramaya University, Haramaya, Ethiopia; E-mail: 2504161375@qq.com

Citation: Shi C (2024) Ice: A Summary of a Century-Old Problem. Adv Appl Sci Res. 15:47.

Copyright: © 2024 Shi C. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

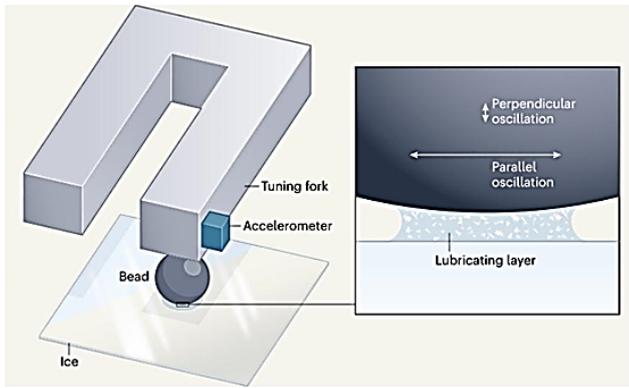


Figure 1: Ice: A summary of a century old problem.

After that, people gave this layer of membrane a name: 'Quasi-Liquid'. After that, in 2021, a heavy paper put forward by Rinse W Liefverink and others was published. They used a spherical instrument and some small iron balls to complete the experiment. The equipment is as follows (Figure 2):

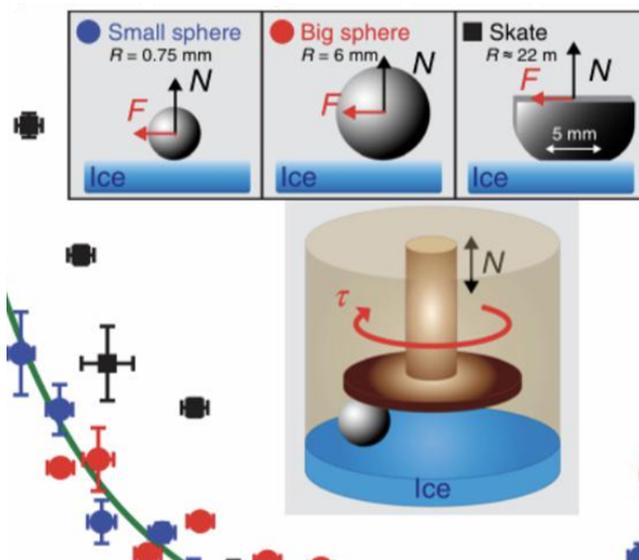


Figure 2: Accurately measured the effects of various physical quantities such as temperature and pressure on the smoothness of ice surface.

CONCLUSION

It can be said that subtle problems can lead to many good physical problems. For this article, there are still many places waiting for people to explore, such as: The influence of different icing materials on it and the 'influence of traces on the dynamic results of motion' mentioned in the 2021 document.

REFERENCES

1. Schoetz DJ Jr (1999) Diverticular disease of the colon: A century old problem. *Dis Colon Rectum*. 42(6):703-709.
2. Paillard D (2015) Quaternary glaciations: From observations to theories. *Quat Sci Rev*. 107:11-24.
3. Waldvogel FA (2004) Infectious diseases in the 21st century: Old challenges and new opportunities. *Int J Infect Dis*. 8(1):5-12.
4. Nougue O, Rode NO, Jabbour-Zahab R, Segard A, Chevin LM, et al. (2015) Automixis in artemia: Solving a century old controversy. *J Evol Biol*. 28(12):2337-2348.
5. Schmidt T, Heitkam T, Liedtke S, Schubert V, Menzel G (2019) Adding color to a century old enigma: Multi-color chromosome identification unravels the autotriploid nature of saffron (*Crocus sativus*) as a hybrid of wild *Crocus cartwrightianus* cytotypes. *New Phytol*. 222(4): 1965-1980.