





J. Frenkel

Victor Ya. Frenkel

*Yakov Ilich
Frenkel*

His work, life and letters

Translated from the Russian
by Alexander S. Silbergleit

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Preface

I regard the possibility, provided by Birkhäuser Verlag, to publish in English the book about my father, Yakov Il'ich Frenkel (1894–1952),* as an honour and recognition of his contribution to the development of physics in the 20th century. Publication of this book shortly after Frenkel's centennial is of special value. I would like to express here my deep gratitude to the publishers.

More than 30 years ago, by the initiative of I.E. Tamm, a special issue of the Russian physical journal «Uspekhi fizicheskikh nauk» (UFN) /1962, v. 76, # 3–4, dedicated to Frenkel, was published. Professor Tamm, who had undertaken the composition of the introductory (biographical) paper for this issue, asked me to provide him with some materials for my father's biography. It was easy for me to accomplish this because, fortunately, a vast family correspondence was in existence, despite all the vicissitudes of life, like several wars and the siege of Leningrad. I assembled some fragments of my father's letters of 1906–1950 for Tamm. Having looked through them, Tamm told me: «But a whole book may come out of it! You must write it!» Stimulated by I.E. Tamm and by B.G. Kuznetsov, who strongly supported the idea, I began to work on the book which, in the spirit of one of M. Faraday's biographies, could be titled «The Life and Letters of Jacov Frenkel». The book was being written at the close of the Khrushchev «thaw», that is, freely enough but still with the over-the-shoulder glance at the censor. Nevertheless, at the beginning of 1966, about 30 pages were thrown out of its already typeset text.

The book was addressed naturally to the readers in the former Soviet Union, and this determined the choice of material. Aiming now at the Western reader, I have made changes, withdrawn from the Russian version numerous pages which required extended comments to be understood by people unaware of many details of Russian history and the history of physics in Russia. Besides, I have been rather strictly controlled by the publishers with regard to the book's volume. A large amount of essentially new material could be included in the book because it was prepared while democracy was beginning to take hold in Russia and censorship relaxed. Moreover, in the quarter of a century since the publication of the Russian edition, I, continuing to study my father's biography (and to publish his books),

*) It is necessary, from my point of view, to give here a small explanation about various ways of spelling of my father's first name, — in connection with specific features of the Russian language.

His official name — as it appears in Russian — must be written as «Yakov». If one likes to add to this name his patronomic — «Ilich» (or Il'ich), it becomes «Yakov Ilich Frenkel». I decided to use this form in the title of the book. In the text one will find the other variants: Jacov, Jacob, or — most frequently — «J.I.» (in the 1920s Frenkel himself used even one more version: «James»).

When Frenkel was a little boy and teenager, he was «Yasha»; this was also how his relatives or close friends called him. This affectionate version of my father's name can be found in the book as well (remembering how my mother, grandparents, closest friends and relatives had addressed him, I counted more than 10 versions, but they are not used in the text).

learned many new things both about him and the destiny of his works. The process resulted in the reworking of about half of the text. What has remained invariant for both editions is the principle of exposition. I tried, wherever possible, to give the floor to Frenkel himself, so the evaluation of his statements, his image, would be formed by the reader without my mediation, so to say, on the grounds of personal impressions. In this respect I gained much from work in state and privately owned archives, in Russia and abroad. I also strived to avoid, when possible, making judgement on the importance and value of Frenkel's papers, quoting instead his outstanding colleagues.

In the process of my work I had dozens of interviews with the students, co-workers and friends of my father. I greatly appreciate their collaboration. I do not give the list of their names here because almost all of them are mentioned in the following pages. However, I would like to make three exceptions for I.E. Tamm, B.G. Kuznetsov and Ya.A. Smorodinsky (the editor of the Russian edition). Alas, none of them is among the living now, and I state here the debt of gratitude to their memory.

My cordial thanks to Dr. E. Jurkowitz for his kind help in checking the galley-proofs of the book.

V.Ya. Frenkel

St. Petersburg, 31 December 1992