

M. de J. 6 I. P.

OBSERVATORIO DE CORDOBA

Córdoba - Argentina

Córdoba, September 3rd 1947

My dear Wataghin,

I am, indeed, very late in writing to you and I have to apologise for the delay. I wonder, whether this letter will reach you in Sao Paulo, or whether it will arrive, while you are in Europe or, rather, in the best part of it, in european stratosphere, near heaven.

I want, first of all, to thank you for all your kindness during my stay in Sao Paulo. And I want to tell you once more how much I admire what you have been able to do there for physics. Looking at things here, and particularly at the reactions of the different people involved, I begin to doubt seriously that we will be able to do a similar job here in Argentina. As a matter of fact, I personally would prefer very much to work in a group like the one you have succeeded to assemble around you and, if there were not the young people here who depend on me, I would not hesitate to ask you plainly to be allowed to join your group in one form or the other. Still, I think things have developed recently in a way, that I do not think that I will be able to go along without some sort of support from abroad.

In La Plata I found R. Gans, still happy about the food he gets. He is still very active and I think that we can expect positive results from him. But his means are extremely limited. He has been given a rather insignificant job and has no access to lecturing. All he can do by now, is to organise an advanced practicum and, later on, he may be able to have a little research done on problems of classical physics. - In Buenos Aires there is very much unsound optimism: Estrella and Kowalewski are "organising physics" and Isnardi, afraid because the inactivity of his institute, lets them do. I do not think that one can expect very much under these conditions. - The project to bring Heisenberg, or at least Sitte alone here, seems to have failed in a very ugly way. Thus there is no hope to get anything in modern physics done in this country, before long. - Finally, the strongest group we had, the one in Córdoba, is in danger. Gaviola made one more of his spectacular resignations (I cannot find out exactly why) and he seems to have failed. If he leaves the observatory, there is 90% probability, that no research work will be possible here any more and even the air here may become irrespirable, with a navy officer as a military commander. This may even mean the destruction of 10 years of hard work of Gaviola and Platzeck, who had succeeded to give to the observatory a modern equipment for astrophysics. What Gaviola wants to do, is to collect funds for a private institute for physics and chemistry, as a first step towards a private university. But there are important reasons to be sceptic. He may find enough funds to start with, but not enough to maintain the institute. Then the whole enterprise will depend too much on his person and he may bring it, at any moment, in the same situation as he did actually with this observatory. Nobody can be sure, therefore, that an institute of this type will be able to maintain the character of a research institute for which it is intended.

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Under these conditions, I can hardly do more, than to wait for a while, how things are going to develop. I hope that I will be able to get Paulo Sergio here with a fellowship of the Argentine government, which has been offered to the University in Rio, but I do not see any possibility, in this moment, to ask for the funds and facilities, I wanted to get in order to be able to work regularly with students of yours and of Mario. What worries me most, is the work with Tiommo, since there will be soon abundant new material from Bristol and Liverpool, which promises interesting new information.

What I should like to ask you, is the following: Whether I could get a temporary contract, either in Sao Paulo or in Rio, say from March to May 1948. I think, that this would help me a) to get some work done, b) to meet the complicated situation here, either to stabilise it, or to organise my leaving, if conditions do not improve. -

For the rest I had quite interesting and encouraging news from abroad. Mattauch told me the story of their being captured, at the end of the war by... Goudsmit. They have been able to carry work on during the whole time, under O. Hahn's direction and protection, fairly free from nazi influences. Two of their young people want to come here, but I do not see any possibility to bring them into conditions suitable to research work here. I wrote to Marcello about the case. As far as the work done in the K.W.I. f. Physik, they have built a new mass spectrograph, determining the isotopes of Hf and the masses of C_{13} and N_{15} . Since the latter values may be of interest to you:

$$C_{13} : M = 13,007581 \pm 0,000025$$

$$N_{15} : M = 15,004934 \pm 0,000030$$

Then, they have an interesting method to separate elements like Ra and Ba, by letting them diffuse through aluminium Oxide. And there is a new effect, on a temperature difference arising, a few seconds after two gases (H_2 and N_2) begin to diffuse one into the other. The theoretical maximum temperature difference, of course a non-stationary one, is of the order of 6° (L. Waldmann). Finally, I got the proofs of Heisenbergs last attempt to deal with Supraconductivity. I wrote to Mario about it. And I have asked for photocopies in order to send them to you.

I trust to hear soon from you, how your work progresses and, thanking you once more for everything you have done for me, I remain with best wishes to you and to your family, with kind regards

very cordially yours

Juho Beck