



## Letter from Georg Bredig to Max Bredig, May 25, 1927

Bredig, Georg. "Letter from Georg Bredig to Max Bredig, May 25, 1927," May 25, 1927. Papers of Georg and Max Bredig, Box 7, Folder 9. Science History Institute. Philadelphia. <https://digital.sciencehistory.org/works/oxdlko0>.

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Translated by Jocelyn R. McDaniel

### English Translation

#### Image 1

PROFESSOR DR. G. BREDIG

KARLSRUHE IN BADEN, MAY 25, 1927

RESIDENCE: BAHNHOFSTR. 14, TELEPHONE 1068.

TECHNICAL UNIVERSITY: TELEPHONE 4093.

INSTITUTE FOR PHYSICAL CHEMISTRY AND ELECTROCHEMISTRY

Dear Max Albert,

You can imagine that I am always thinking about you and the important decisions that you now must make about your future. First, I will address the question of your possible transfer to the main laboratory of I.G. or Mr. Mark's department. I spoke to Mr. Mark about it here yesterday. He said that he could probably wait until September 1st (or October 1st) for you to join him, but that you must submit your report to I.G. soon, because the processing of your application will take 2-3 months anyway. You would have the next few weeks (until

about June 11th) to submit your employment application to the management of I.G. Farbenindustrie (possibly with a reference to Dr. Mark). It should include your curriculum vitae, detailed educational background (information about your publications and academic exam grades), and information about your teachers, who could provide information about you (Stefan Goldschmidt, K. Freudenberg, Haber, Kallmann, Mark, Pohl). In any case, it would be helpful for you to send a message to Mr. Mark when you have submitted your application to I.G. He will then take care of it and would like to employ you if management agrees. In the near future, you would probably have the opportunity to do all kinds of work with X-rays and learn everything about using them in this field. You would probably also learn many other interesting things. In my opinion, however, only the outermost force fields in the outermost surface of the shattered, atomically rough lattice play a role in heterogeneous catalysis and thus probably the outermost atomic electrons and the orbital deformation or that of the substrate (see Taylor u. Kistiakowsky, Journal of Physical Chemistry, 125, Page 345 (1927)).

## Image 2

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Optical properties in the outermost surface will probably provide information here and I somehow hope that your current studies in Göttingen can also be instructive and motivating regarding heterogeneous catalysis. I also spoke to Professor Hevesy from Freiburg, who visited me here the day before yesterday. I also told him about you, but I think that he doesn't have an assistant position for you now. Today, I also wrote to Fajans about you, but he is probably in Dresden at the moment for the Bunsen conference, which I must miss for financial and health reasons. Haber and I believe the position in Mark's laboratory that is now possibly\* available is a unique, and not easily recurring opportunity to find. Moreover, it is a scientifically oriented position in industry. Hence, I'm very much for it. However, you alone must bear the responsibility and reach a decision about this now. You are now 25 years old and must face the future soberly and resolutely! In my opinion, the times of a warm nest at home or with friends like Haber are over and no longer conducive to your independent development. For this reason, I am not really in favor of you accepting Haber's touchingly good and well-intentioned offer, since you would crawl back into a warm nest with familiar surroundings instead of standing on your own two feet as a man. If you don't want to go into industry at all, I must ask you to look for an assistantship independently (whereby you can of course refer to information from your aforementioned teachers and possibly also to me). If your heart is in further scientific studies, I would point you to the following places:

1) Copenhagen: Bjerrum (veterinary school) and Brønsted (university) on modern "activity

theory" (you can get by there with 250 Marks per month)

(Bohr supposedly only works with quantum mechanics and not chemistry.)

2) Zurich: Victor Henri is a physical chemist at the university. He did brilliant research on ultraviolet band spectra (probably fundamental for organic chemistry), which I consider very important.

3) Munich: Fajans, Ion Formation

4) Grimm: Würzburg, Ions/Crystals see the Handbook of Physics. I gave you an offprint.

5) V. Goldschmidt: Oslo, see the Reports of the Chemical Society, last Issue No. 5, page 1263.

6) Tammann: Göttingen: Metallography and more with Frank-Pohl

(left margin)

\*Mr. Mark can certainly recommend your employment but other authorities at I.G make the decision about it.

## Image 3

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II.

PROFESSOR DR. G. BREDIG

KARLSRUHE IN BADEN, MAY 25, 1927

RESIDENCE: BAHNHOFSTR. 14, TELEPHONE 1068.

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INSTITUTE FOR PHYSICAL CHEMISTRY AND ELECTROCHEMISTRY

All of the aforementioned people are well-intentioned with regards to you and me. If I can pay for your living costs, they would certainly like to admit you to their institutes. Yet whether they could give you an assistantship is uncertain, and likely impossible abroad. Wouldn't it be possible for you to work for Windaus or Tammann (possibly on Pohl's and Haber's recommendation) as an assistant?

Otherwise, I would have to feed you for another 1-2 years, and I wonder if I can still be responsible for Marianne if I don't save a little (albeit less) for her as long as I'm alive and still working. At my age, something can happen any day, although I'm doing relatively well. Moreover, mother would only receive her widow's pension of approximately 300 Marks per month and the assets I left behind would only yield around 1,000 Marks in interest per year.

If mother dies, there will be no pension either. You two children together would only have the meager interest mentioned above, which your sister certainly cannot live on, I think, even if she receives all the interest for herself. Hence, if I had to support you for another 1-2 years at university, you would have to promise me, which I would hope anyway, to take care of your sister later if she doesn't get married or find a decent job. As you know, Haber's friendly offer is also limited to two years. If you work for Mark, I believe you still have the option to return to the university at any time if you wish and your funds permit this. Your cousin, Dr. Lemberg was also in industry and will presumably (as I will tell you confidentially) complete his habilitation in the coming years in Heidelberg, where he now works for Freudenberg. However, he has a very rich father and can risk it.

Think carefully about everything, my dear boy. Don't let what has been said discourage you. Life balances out again if you approach it with courage, diligence, and consistency. However, if you only rely on staying in comfortable places, you will one day be cruelly removed from them (think about Uncle Fritz).

For the time being, you should continue to work in Göttingen until the end of the summer semester. If you wish, you can perhaps come here for 1-2 days during the Pentecost holidays and likely just as long in the Black Forest. First, talk to me about it.

## **Image 4**

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After you have read it, hand it in sealed at your interview and return the letter from Mrs. Mark to mother to us, which is also enclosed here.

Warm regards from all of us,  
Father