

August 29, 1951

Dr. Max Perutz
Department of Physics
University of Cambridge
Cavendish Laboratory
Free School Lane
Cambridge

Dear Dr. Perutz:

I thank you for your letter of August 17. Professor Corey and I have been very pleased that you should have found the 1.5 Å spacing in fibrous proteins of the α -keratin type. In one of our papers we had mentioned it, as observed by MacArthur for porcupine quill tip. Your recognition of the presence of this reflection as a rather reliable indication of the presence of the 3.7-residue helix seems to me to be very important.

I am not at all sure that this helix is present in feather rachis. However, Professor Corey and I have pointed out in a short article that will appear in Nature that the absence of this reflection does not eliminate this helix, since the two chains proposed for the unit could be just at a phase with one another.

Professor Corey and I have found some new sheet structures—two new pleated sheets, which will be described in Proceedings of the National Academy of Sciences, and also another sheet of a new type, which we call a rippled sheet.

Sincerely yours,

LP:kh

Linus Pauling

P. S. We enjoyed Kendrew's visit very much. I wish that you could come to see us sometime.