

UNIVERSITY COLLEGE LONDON

GOWER STREET WC1

EUSTON 7050

UK

20. 6. 1956.

Please quote:

Sir K. S. Krishnan

Dear Friend,

I am very sorry that I cannot be at the Royal Society (I think) to hear you on Thursday, July 28th, I have an unavoidable College function which will not be likely to be over in time, although if it is, I will certainly get there.

I do expect to be at the Society for Visiting Scientists on the following Monday, and to see you there.

At present I am laid up with something that causes constant dizziness, but I am getting better and, as you see, can sit up and write.

Yours sincerely,

Kathleen Lonsdale.



TELEPHONES:
REGENT { 0669.
 { 5716.

THE ROYAL INSTITUTION,
21, ALBEMARLE STREET,
LONDON, W.1.

Dear Professor Krishnan,

My husband
and I will come to the
Royal Society at 8.30 (not
before, I think). Perhaps
we shall see you in the
entrance hall. If not, we
will proceed upstairs &
hope to meet you there
in the reception room.

Yours sincerely,
K. Lonsdale.

% Duncan + Katharine Wood
29 rue Pestalozzi
Geneva.

6. 9. 1958

Dear Friend,

I am not allowed to come into the ground floor of the Salle — only in the Upper Gallery on Floor 6. So I can see you, but you cannot see me!

Are you able to come to supper tonight? I shall be at home at any time from 6.30 onwards and if you can come that will be delightful. If not we must arrange another time.

I shall be in the Public Gallery at the Press Conference today from 12 noon onwards (it sometimes goes on until 2 p.m.) in the Council Chamber. Otherwise I shall spend

the morning in the Exhibition

With kindest regards,
Kathleen Lonsdale.

Would you also be able to come to a lunch meeting next Thursday at the above address at 12.30? There will be just a few people and I shall open a discussion on Science and Politics, finishing in time to get back to the afternoon session. You could perhaps let me know about this on Monday evening if we do not manage to meet before then.

BY AIR MAIL
PAR AVION
AIR LETTER
AEROGRAMME
LONDON N.W.1
6 PM
1954
B



Sir K. S. Krishnan
Director N. P. L. India
Hillside Road
New Delhi 12
INDIA

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Sender's name and address: *If undelivered, please return to* K. Lonsdal
UNIVERSITY COLLEGE LONDON
Gower Street w c 1

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To open cut here

61

9 APR 1954

University College,
Gower St.,
London W.C.1.
6.4.1954

Sir K.S. Krishnan.

Dear Friend,

I am grateful to you for acting so promptly in regard to Dr. Gupta. I am sure that he will justify our trust in him.

Thank you very much also for your kindness to Miss Lily Holt. She wrote and told me that she appreciated it very much indeed, as she feels rather lonely sometimes away from home.

With kind regards,

Yours sincerely,

Kathleen Lonsdale.

UNIVERSITY COLLEGE LONDON-GOWER ST WC1

Deptt of Chemistry

6 July 1954

Dear Friend,

I am looking forward to meeting you in Paris, but I thought you would also like to know that I expect to be in Delhi from August 4th to August 9th. I am afraid that you may not be back by then, I have written to Sir Shanti Bhatnagar to tell him that I shall be happy to talk to any groups of crystallographers or others who may like to hear me.

I shall be staying at the Friends' Centre, 24 Rajpur Road, Delhi 8, and Miss Jeanette Bossiet, who is in charge of the Centre, may have arranged something of a programme for me since my expenses are being paid by the Society of Friends, but they know that I would wish to visit scientists also, and I would be very happy to do so. With kind regards yours sincerely

Kathleen Lonsdale

11th October 1951

Dear Mrs. Lonsdale,

Miss S.P. Tharakan, one of the research assistants in the National Physical Laboratory of India, applied recently for a British Federation Scholarship. She mentioned in her application that she would like to join the Clarendon Laboratory at Oxford for research ~~in~~ on Resonance Phenomena in Magnetic Crystals at High Frequencies. She has been advised by the Central Committee for selection of candidates that it will be desirable for her to secure admission in some institution in London, since she is required to stay in Crosby Hall (London), during the period of tenure of her scholarship. If your Laboratory is not too crowded already, may I request you to take her for research either in Crystallography or any other suitable subject which you may assign to her. Though she has been studying various branches of Physics, she has not much experience in research, but I am sure under your guidance she will be able to do some useful work. I am enclosing a detailed statement of her qualifications, and a copy of the letter which she received from the Secretary of the Selection Committee to which I referred in the body of this letter.

With kind regards,

Yours sincerely,

Mrs. Kathleen Lonsdale,
121 Station Road,
West Drayton,
Middlesex,
England.

BY AIR MAIL

AIR LETTER

IF ANYTHING IS EN-
CLOSED THIS LETTER
WILL BE SENT BY
ORDINARY MAIL.



Prof. Sir K.S. Krishnan FRS
Nat. Phys. Lab. of India
Hillside Road
NEW DELHI
India.

Sender's name and address:-

K. Lonsdale
University College
Gower St.
London W.C.1.
England



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To open cut here

To open cut here

University College,
Gower St.,
London W.C. 1
21. 11. 1951

26 NOV 1951

Dear Frieda,

Your letter was unfortunately sent by sea mail and did not arrive until this morning. I notice that Miss Tharakan should have let the Selection Committee know by yesterday (Nov. 20) whether she had found a laboratory to accept her.

I should be glad to do so, on your recommendation, although I notice that her examination record is not very good and that may go against her with the selection committee. My laboratory is pretty full, but I could squeeze her in.

In the circumstances I will myself forward your letter and the other particulars to the British Federation of University Women and ask them to accept this as a provisional application, pending confirmation by the Selection Committee in Bombay. Possibly Miss Tharakan may like to tell the Committee that I have done this and the application can then be confirmed, and any further particulars sent, or withdrawn.

I am sending a cable this morning which you should have received by the time this arrives.

With kind regards,

Kathleen Lonsdale.

UNIVERSITY COLLEGE LONDON

EUSTON 4400

GOWER STREET, W.C.1.

21 APR 1952

Dear *Professor Krishnan,*

Volume I of the International Tables will shortly be ready for the final printing, and I have to decide whether or not to have some separate sections offprinted for sale in quantity for teaching purposes. Two alternatives are possible :

- (1) To make a selection immediately and have them printed now. The type can then be broken up.
- (2) To wait for six or twelve months after publication, advertise and solicit orders through ACTA CRYSTALLOGRAPHICA, and then print. This would mean keeping the type and resetting in forms and would necessarily mean that the offprints would be much more expensive. I have therefore decided on (1).

Enquiries have shown that several schools of crystallography in this country are prepared to place bulk orders now, leaving the selection entirely in the hands of the two Editors of Volume I, and paying whatever is the cost price. It is not possible to say at present what this would be. The offprints will include "Two dimensional space-group data" "Monoclinic and orthorhombic space-group data" "Introduction to Structure Factor Tables" and probably some sections of the text, and orders will only be accepted in multiples of 100. If you wish to be allowed to participate, please let me know at once the approximate number you are likely to need (please remember that you will be ordering for the next twenty years: it may not be possible to re-order), and a list of the sections to be offprinted will be sent to you later, when a firm order will be required. The prices will depend on the number offprinted, and an estimate will be sent as soon as possible.

Yours sincerely,

Kathleen Lonsdale

UNIVERSITY COLLEGE LONDON

DEPARTMENT OF CHEMISTRY

EUSTON 4400

GOWER STREET, W.C.1

10. 1. 1954

Dear Friend,

Miss Lily Holt, who is the aunt of two young friends of mine, has been sent out to New Delhi by the Board of Trade and does not, as yet, know anyone in India. She would like very much to make some friends in New Delhi and I would be most grateful if you could introduce her to your wife and other ladies of your household. I am putting her into touch also with the Friends Centre at 24 Rajpoot Road, Delhi 8.

I hope to see you again in Paris at the Congress next July,

Yours very sincerely,

Kathleen Lonsdale.

Professor Sir Kariamanikkam Krishnan.

Sir. K.S. Krishnan

UNIVERSITY COLLEGE LONDON

GOWER STREET WCI

EUSTON 4400

Dear Sir Kariamanikam,

Earlier this year I issued a circular letter about the possibility of ordering offprints for teaching purposes from Volume I of the International Tables for X-ray Crystallography, in order that I might obtain some estimate of the probable demand.

It has now been decided that the following sections shall be offprinted:

- (1) Unit cell transformations (7 pp)
- (2) Equivalent positions, symmetry and possible reflections for the 17 two-dimensional space groups (16 pp).
- (3)(4) The same for selected monoclinic and orthorhombic space groups (15 pp, 16 pp).
- (5) Introduction to Structure Factor Tables, with two full examples (14 pp).
- (6) Patterson functions, and transformation of co-ordinates (14 pp)
- (7) Notes on special topics (sub- and super-groups, statistical methods, inequalities) and index of symbols (18 pp).
- (8) Prospectus, which includes full information about one tetragonal space group.

Each complete set of 100 (that is, 800 offprints in all) will cost £16 post free, and orders, with cash, should be sent direct to The Kynoch Press, Witton, Birmingham 6, England, as soon as possible.

Please order as many as you are likely to need in the next 20 years, as there will only be one printing. Sets will not in any circumstances be split, as the extremely low cost is dependent on the giving of a block order by the International Union to the printers, for copies to be run off while the printing of Volume I is proceeding. It is of course perfectly legitimate for two or more schools of Crystallography to share one set between them if they wish to do so by private arrangement amongst themselves. The date of delivery will be October-December 1952.

Yours sincerely,

Kathleen Lonsdale

UNIVERSITY COLLEGE LONDON

EUSon 4400

DEPARTMENT OF CHEMISTRY

GOWER STREET, W.C.1

KL/BID

23rd March, 1954.

Dear Friend,

I have had a really despairing letter from one of my former research students, Dr. M. P. Gupta, now of Ranighat, Patna 6, Bihar, India, who has been working for the past nine months as a lecturer in Physics at the University of Patna. He is married, and he tells me that his salary is £20 a month, and that he is unable to teach or to do any research in X-ray crystallography, apart from theoretical work on the experimental results he brought back with him from England. He feels that he simply must get another job where his experience will be used and where he has a chance of promotion.

He really was a very good and very hard-working student, careful both with his experimental work and with the calculations based on it. I would say that he was the best of the students I have had, except for Dr. Judith Grenville-Wells, who is now back again as a member of my staff. I am presenting his work at the Paris Congress because it is the most interesting structure analysis that has been carried out recently in my laboratory. He studied Rb- and K-hydrogen fumarates, triclinic and not isomorphous. He also investigated dihydroxyfumaric acid and published a paper on this in the J. Amer. Chem. Soc., and has done a number of magnetic susceptibility measurements also. As he attended all the courses of lectures for the M.Sc. (Crystallography) here, he has a thorough knowledge of the subject and is well equipped both to teach it and to research in it or to guide the research of others.

I wrote some months ago at his request, to his Vice-Chancellor and to Sir Shanti Bhatnagar and enclose a copy of the Report I sent them, but apparently they were not able to do anything for him.

He was a very pleasant, modest colleague. I do hope that he will be given a chance to prove his worth. It will not be good if young scientists of ability become bitter through frustration.

I hope very much to see you in Paris this July. There is a chance that I may be going to Australia for a month or so in August-September this year. I am not sure whether the air journey would allow me to stop over in Delhi, but if I could I would very much like to do so, for a day or two at least.

With kind regards,

Yours sincerely,

Kathleen Lonsdale

March 30,

4

Sir K.S.Krishnan F.R.S
Director

Dear Mrs Lonsdale,

Thank you for your kind letter which I received yesterday. I shall do my best to help Dr M.P.Gupta to get a suitable post where he will have opportunities for continuing his research work. I have already written to him to find whether he would be willing to take up a post in the x-ray division of the National Physical Laboratory of India.

I expect to be in Europe next July and I am looking forward to meeting all of you.

With kind regards

yours sincerely

Dr Kathleen Lonsdale F.R.S
Department of Chemistry
University College
London

Department of Chemistry

KL/BID

2nd July, 1953.

Report on the work of Manoranjan Prasad Gupta

Mr. Gupta came to my Department in October, 1950, with a Scholarship from the Government of India, to study and to undertake post-graduate research work for the Ph.D. degree of London University. This degree he has now obtained and he has returned to the Department of Physics, the University, Patna.

I found him to be quite an outstanding research student, with a very clear grasp of essentials, able to study literature intelligently, a careful experimenter and an accurate theoretical worker. In addition he was able to lecture well in our departmental colloquia; his style was good and his material was presented logically and convincingly.

During the first year Mr. Gupta attended all the post-graduate courses of lectures and practical work provided here on

- (1) The history of X-ray analysis.
- (2) Pure crystallography.
- (3) The theory of space-groups.
- (4) Crystal optics, theoretical and experimental.
- (5) X-ray methods, theoretical and experimental.
- (6) Crystal physics, including magnetism, electricity and elasticity.
- (7) Chemical crystallography.
- (8) Structure analysis, including Fourier synthesis.
- (9) Crystal growth and deformation.
- (10) Neutron diffraction.
- (11) Electron diffraction.
- (12) The building of crystal models.

At the same time he began his research problem, which was to

determine the structure of the fumarate group, trans-(HC.COO)₂, by the 'heavy atom' or 'isomorphous series' methods. This involved first a literature search and then the chemical synthesis of two suitable substances, potassium and rubidium hydrogen fumarates. Although not a chemist by training he tackled these in a very business-like way and obtained crystals suitable for subsequent X-ray examination. The remainder of his time has been spent mainly in the elucidation of the crystal structures of these two compounds and in the preparation of his Ph.D. thesis.

The crystal structure analyses were not straightforward. No initial crystallographic data were available and the crystals proved, on examination, to be triclinic, geometrically the most difficult of all the crystal systems. In working out the structures, just about every known device of X-ray crystal analysis had to be used, and it required on Mr. Gupta's part a good deal of persistence and ingenuity. He is very much to be congratulated on having achieved a really worth-while piece of original research, the results of which will be interesting to crystallographers and to chemists alike. The work will be published in three papers, two of them in the Acta Crystallographica, and one in the Journal of the Chemical Society.

In addition to this work, Mr. Gupta made a preliminary investigation of the structure of the so-called dihydrumaleic acid dihydrate, which proved unequivocally that it was, in fact, dihydrofumaric acid dihydrate. This work is being published in the Journal of the American Chemical Society, very shortly, together with a paper by Dr. E. F. Hartree of the Moltano Institute of Biology at Cambridge, who was particularly interested in the result.

Mr. Gupta's Thesis was very good and he made an excellent impression on his other examiner, Professor J. D. Bernal, F.R.S., in the oral examination. He quite clearly had a firm grasp of his whole subject and was able to deal with all the questions that were put to him.

Mr. Gupta has a considerable programme of research planned out for the future. This will depend in part upon his being able to obtain the necessary equipment, and upon his having either time or research assistance. He will, I am sure, be well able to direct and to train research students and I very much hope that he will be given the opportunity to build up a post-graduate school of research in Patna or elsewhere, where his experience and ability can be fully used.

Kathleen Lonsdale

(KATHLEEN LONSDALE, D.SC., F.R.S.)
Professor of Chemistry.

Sir K.S. Krishnan F.R.S
Director

March 29, 4

Dear Dr Gupta,

Today I received a letter from Mrs Lonsdale about you and she has sent me detailed report of the work done by you while you were in London. It seems to be a pity that it has not been possible for you to continue any experimental work after your return to India. I am writing this letter to enquire whether it will be possible for you to take up a suitable post at the National Physical Laboratory of India. The final appointment has to be made on the recommendation of a selection committee but meanwhile I thought I might consult you to find (i) your present salary and grade and (ii) what salary would be acceptable to you, if my proposal to take you at the NPL is agreed to by the selection committee.

With kind regards

yours sincerely

BY AIR MAIL
PAR AVION
AIR LETTER
AEROGRAMME



Sir Kariamanikkan Krishnan, F.R.S.
National Physical Laboratory,
Hillside Road,
New Delhi,
INDIA.

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Sender's name and address:

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UNIVERSITY COLLEGE LONDON
Gower Street wc1

Professor K. Lonsdale, F.R.S. Department of
Chemistry

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University College London · Gower Street WC1

Department of Chemistry

KL/BID

6th July, 1954.

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With kind regards,

Yours sincerely,

Kathleen Lonsdale

KATHLEEN LONSDALE.

Sir Kariamanikkan Krishnan, F.R.S.
National Physical Laboratory,
Hillside Road,
New Delhi,
INDIA.