



The President Council and Fellows  
of The Royal Society of London  
invite you to attend an Empire Scientific Conference  
organised by the Society  
at the request of His Majesty's Government

The Conference will be opened by  
His Majesty The King  
on 17 June, and will continue in session  
until 8 July 1946 inclusive



THE ROYAL SOCIETY  
EMPIRE SCIENTIFIC CONFERENCE

1946

*Programme of the Ceremony of Opening*

by

HIS SACRED MAJESTY, KING GEORGE VI,  
Patron of the Royal Society

*on*

17 June 1946

at 11.00 a.m.

*at the*

SENATE HOUSE  
OF THE  
UNIVERSITY OF LONDON

ADDRESS OF WELCOME

by

The President of the Royal Society

SIR ROBERT ROBINSON, Kt.,

M.A., D.Sc. (*Manchester*), HON. D.Sc. (*Liverpool, Wales, Durham, London*),  
HON. LL.D. (*Birmingham, Edinburgh*), HON. D. PHARM. (*Madrid*), F.C.S., F.I.C.

OPENING OF THE CONFERENCE

by

HIS MAJESTY THE KING

DEAN C. J. MACKENZIE, C.M.G., M.Sc., D.Sc., LL.D.,

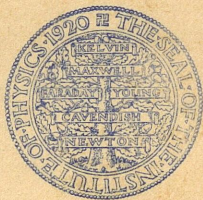
Leader of the Canadian Delegation,

will express the thanks of the Delegates

Presentation of Delegates to

Their Majesties

*W. O. Krishna*



THE INSTITUTE OF PHYSICS

X-RAY ANALYSIS GROUP

CONFERENCE  
DINNER

WEDNESDAY, 10th JULY, 1946

RESTAURANT FRASCATI  
LONDON

David Hooker

P. P. Ewals.

M. v. Laine

J. Carchois

J. M. Brown

Kathleen Lonsdale

Max Born

M. J. Gachawen

H. H. Dale

W. Brass

Kelvin Dale

J. S. Lomax

J. Kurtin Miller

C. G. Mac Gillary

L. A. Crowther

Ralph W. Gifford

Dorothy Hodgekin

J. P. G. Gifford

naval  
procijs

M. J. Gifford

J. M. Gifford

H. Peiser

G. Gifford

N. P. Kolkmeier

W. J. Bunge

M. Gifford

W. Gifford

J. Kellar

A. J. Bradley

H. P. Rookley

W. F. de Jong

H. Scauland

A. Gifford

J. B. Block

W. Gifford

J. Gifford

J. Gifford

W. Nowacki

Helen D. Megaw

J. Gifford

W. A. Wooster

V. Petruska

W. Gifford

D. Wilson & J. Nelson

W. Gifford

W. H. Taylor

H. Scauland

E. Gifford

MENU

Hors d'Oeuvre Assortis

Chasseur

Petit Pois

Pommes Nouvelles Persillees

Bombe Jubilee

Café

THE INSTITUTE OF PHYSICS  
X-ray Analysis is Group  
 1946 Conference Dinner  
 Restaurant Frascati, London - 10th July

Prof. J. D. Bernal	Prof. J. Wyart	Mrs. Hodgkin	Prof. R. W. G. Wyckoff	Prof. J. A. Crowther	Miss C. H. Macgillivray	Sir W. Akers	Dr. J. D. H. Donnay	Lady Dale	Sir W. L. Bragg	Sir H. Dale	Prof. v. Laue	Prof. Ewald	Dr. D. Harker	Sir K. S. Krishnan	Mlle. Cauchois	Prof. J. Bijvoet	Mrs. Lonsdale	Prof. M. Born
Dr. J. Novak	Dr. J. Laval	Mrs. H. Lowery	Prof. A. Guinier	Prof. D. V. Thompson	Mme. Burgers	Mr. F. A. Bannister	Prof. O. Hassel	Prof. W. H. Zachariasen	Mr. Bunn's (Guest)	Prof. R. Hocart	Prof. I. Waller	Dr. L. G. Sillen	Dr. E. Grisen					
Prof. M. J. Buerger	Prof. J. Weigle	Dr. J. J. Hermans	Dr. L. H. Germer	Dr. J. S. Woldringh	Prof. W. T. Astbury	Prof. I. Fankuchen	Mme. A. Kochanovska	Prof. J. J. Trillat	Dr. L. L. van Reyden	Dr. P. Bernard	Mr. J. Wasastjerna	Dr. R. Tertian	Dr. T. L. Richards					
Dr. H. Lipson	Dr. A. J. Bradley	Dr. H. Lowery	Mrs. L. V. Chilton	Mr. Twyman's (Guest)	Dr. C. Finbak	Mrs. F. A. Bannister	Prof. E. G. Cox	Mr. D. A. Oliver	Mrs. H. R. Lang	Dr. C. Sykes	Mr. Pugh's (Guest)	Dr. R. C. Evans	Dr. J. J. de Lange					
Dr. Peiser's (Guest)	Dr. G. Hambræus	Mrs. N. Clarke	Dr. W. G. Perdok	Mrs. D. V. Thompson	Dr. G. Wearmouth	Dr. W. Nowack	Mrs. W. A. Wooster	Mme. V. Paic	Mr. C. W. Bunn	Dr. D. MacLachlan	Dr. H. O. Puls	Mrs. A. J. C. Wilson	Dr. L. J. Comrie					
Dr. N. H. Kolkmeijer	Mr. H. P. Rooksby	Dr. J. Thewlis	Dr. H. D. Megaw	Mr. G. Chaudron	Mlle. J. Moiroud	Mme. Walter-Davy	Dr. V. Petrzilka	Mr. I. C. Brockway	Mlle. T. Petitpas	Miss B. Stryk	Mme. Weill	Prof. K. H. Meyer	Mlle. Stora					
Dr. G. A. Homes	Prof. W. F. de Jong	Mr. Byrne's (Guest)	Mr. L. V. Chilton	Mr. Twyman's (Guest)	Dr. L. Morel-Klopstein	Dr. A. E. J. Vickars	Dr. W. A. Wooster	Mr. Oliver's (Guest)	Dr. H. R. Lang	Prof. Robertson	Mr. A. E. Pugh	Dr. J. C. L. Faverjee	Dr. J. Iball					
Dr. H. S. Peiser	Miss Scouloudi	Mr. N. Clarke	Dr. H. Brasseur	Dr. A. T. Jensen	Mr. Nelson's (Guest)	Prof. I. Oftung	Mrs. E. G. Cox	Dr. M. Paic	Mr. Bunn's (Guest)	Dr. W. H. Taylor	Dr. P. Terpstra	Dr. A. J. C. Wilson	Mrs. L. J. Comrie					
Prof. J. A. A. Ketelaar	Mr. H. J. Goldschmidt	Miss E. Linden	Dr. T. B. Rymer	Mr. Twyman's (Guest)	Dr. W. G. Burgers	Dr. A. Taylor	Dr. E. H. Wiebenga	Dr. F. Happey	Dr. C. H. Carlisle	Dr. W. Betteridge	Mr. Pugh's (Guest)	Dr. J. F. H. Custers	Mr. N. T. Dunning					
Dr. A. D. Booth	Mr. J. N. Kellar	Mr. B. R. Byrne	Mr. T. A. Margerison	Dr. A. E. Rodriguez	Mr. J. B. Nelson	Dr. G. Nagelschmidt	Mrs. Riley	Mlle. G. Petitpas	Dr. N. F. M. Henry	Mr. G. Benard	Dr. W. Ehrenburg	Mr. Comrie's (Guest)	Mr. Comrie's (Guest)					
Mr. C. R. O'Dey			Mr. H. P. Myers		Mr. R. S. Sharpe				Dr. V. Vand			Mr. Pugh's (Guest)						

THE POLYTECHNIC INSTITUTE  
OF BROOKLYN

THE SOCIETY OF SIGMA XI

THE MICROWAVE RESEARCH INSTITUTE

and

THE INSTITUTE OF POLYMER RESEARCH

join in sponsoring a lecture by

SIR K. S. KRISHNAN  
University of Allahabad

on

"THEORY OF ELECTRICAL CONDUCTION  
IN METALS AND ALLOYS"

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Saturday, November 23rd, 1946, at 2:30 P.M.

*in the Student Lounge*

99 Livingston Street  
Brooklyn 2, N. Y.

*On the morning of*

Saturday, November 23rd, 1946, at 11 A.M.

DR. R. W. G. WYCKOFF

of the INDUSTRIAL RESEARCH LABORATORY  
OF THE NATIONAL INSTITUTE OF HEALTH

Bethesda, Maryland

*will lecture on*

"RECENT ADVANCES IN ELECTRON  
MICROSCOPY"

*in the Student Lounge*



POLYTECHNIC INSTITUTE OF BROOKLYN  
99 Livingston Street Brooklyn 2, N. Y.

The Institute can be reached from Manhattan by taking any  
subway to the Borough Hall Station in Brooklyn.

The Executive Council of the Indian Society of  
Agricultural & Animal Husbandry Statistics  
has the pleasure of inviting

Mr. Dr. Sri K. S. Krishnan

on the occasion of

The First Annual Meeting of the Society  
to be held on the 11th December 1947 at 5-30 p. m.  
in the Constitution Club, New Delhi.

The Hon'ble Dr. Rajendra Prasad will deliver the  
presidential address

P. V. Sukhatme  
Honorary Secretary

## Programme.

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*11th December, 1947, at 5-30 P. M.*

Place : CONSTITUTION CLUB HALL, NEW DELHI.

Speeches of welcome by

- (i) Mr M. S. Randhawa. I. C. S., Vice-President of the Society.
- (ii) Sir Datar Singh, Vice-chairman, Indian Council of Agricultural Research.
- (iii) Dr. S. S. Bhatnagar. F. R. S., Secretary, Ministry of Scientific Research.

Secretary's report by Dr. P. V. Sukhatme

Presidential address by the Hon'ble Dr. Rajendra Prasad, President of the Society.

Vote of thanks : by Dr. V. G. Panse

Coffee :

The Executive Council of the Indian Society of  
Agricultural & Animal Husbandry Statistics  
has the pleasure of inviting

Mr. Dr. S. K. S. Krishnan.

to attend the symposium on Statistical Organization for India with  
special reference to agriculture arranged on the occasion of  
The First Annual Meeting of the Society  
on the 12th December, 1947 at 5 p. m.

in the Administrative Intelligence Room (Cinema),  
B. Barracks, Queensway, New Delhi.

The Hon'ble Mr. R. K. Shanmukham Chetty will preside.

P. V. Sukhatme  
Honorary Secretary

# PATNA UNIVERSITY.

*Sukhraj Ray Readership Lecture 1941-42.*

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Dr. K. S. Krishnan, D. Sc., F. R. S.  
*Mahendralal Sircar Professor of  
Physics, Calcutta University* will deli-  
ver a series of lectures in the Physics  
Lecture Theatre of the Patna Science  
College on "The Magnetic and other  
Properties of Organic Crystals" from  
the **29th January** to the **3rd. Feb-**  
**ruary, 1942** at **6-30 P. M.** (Bihar  
time) each day.

*All are cordially invited to attend.*

PATNA,

*The 20th. January, 1942.*

M. A. HOSAIN,

*Asst. Registrar.*

# SPECIAL LECTURES

ON

## The Electronic Structure of Metals and Alloys

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### SYNOPSIS

#### I LECTURE (*9th October 1941*)

The classical electron theory of metals : a critical discussion : inadequacy of the classical theory.

Sommerfeld's treatment based on Pauli's Principle of Exclusion : metal regarded as an assemblage of free electrons obeying Fermi-Dirac statistics : discussion of the various metallic properties.

Discussion of the Pauli Principle as applied to the motions of free electrons.

Influence of the lattice field on the motions of the electrons : exchange of energy and of momentum between the electrons and the lattice.

#### II LECTURE (*10th October 1941*)

Brillouin zones in crystals : overlap of zones : metals, semi-conductors and insulators.

Detailed discussion of the properties of the free electrons in the alkali metals, the transition elements, and some typical semi-metals like graphite and antimony.

The influence of temperature, and the effect of impurities, on the properties of semi-metals.

The electronic structure of some simple alloys discussed in relation to the Brillouin zones in the alloys : Hume-Rothery rule.

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# UNIVERSITY OF MYSORE

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## SPECIAL LECTURES

1941-42

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**Dr. K. S. Krishnan, D.Sc., F.R.S.,**  
Mahendralal Sircar Professor of Physics, Calcutta,

will deliver two lectures  
(in English)

ON

## The Electronic Structure of Metals and Alloys

in the Intermediate College, Bangalore,

*on Thursday, the 9th and Friday, the 10th  
October, 1941, at 6 p.m., each day.*

**SIR C. V. RAMAN, F.R.S., N.L.,**  
Head of the Department of Physics,  
Indian Institute of Science, Bangalore,  
will preside.

UNIVERSITY OFFICE,  
MYSORE, }  
*30th September, 1941.* }

**C. S. PICHAMUTHU,**  
*Registrar.*



CALCUTTA UNIVERSITY

NOTICE

Dr. K. S. Krishnan, D.Sc., F.R.S., who has been appointed Adharchandra Mukherjee Lecturer in Science for the year 1941, will deliver two lectures on "The Physics of Metals" according to the following programme :-

Time ( February 17, Tuesday, at 3-30 P.M.  
( February 19, Thursday, at 3-30 P.M.

Place ( Chemistry Lecture Theatre, University College of Science,  
( 92, Upper Circular Road.

The Lectures are open to the public.

Senate House, )  
The 10th February, 1942. )

J. CHAKRAVORTI,  
Registrar.