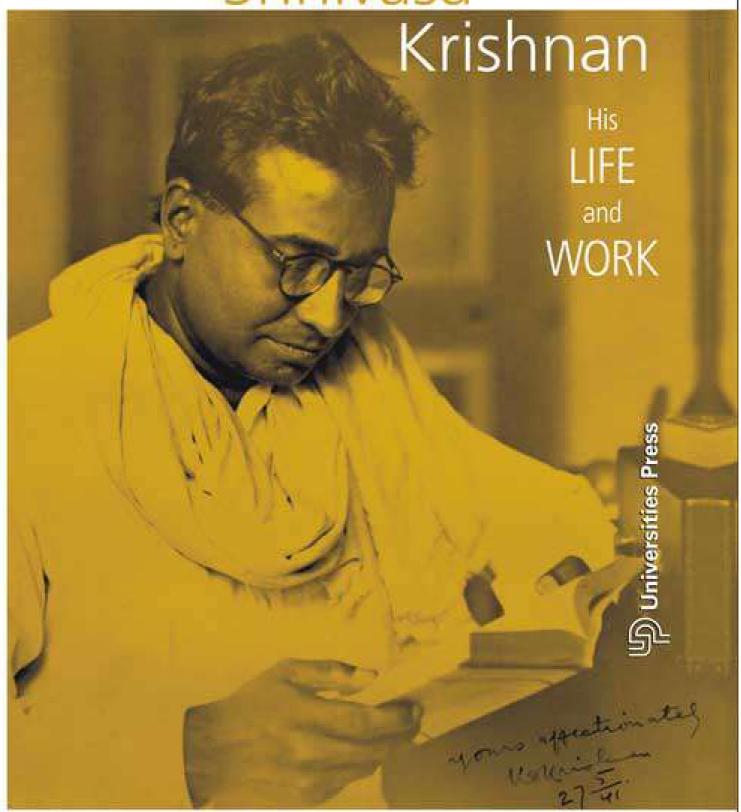
Kariamanikkam Srinivasa



D C V Mallik • S Chatterjee

Kariamanikkam Srinivasa Krishnan

His LIFE and WORK

D C V Mallik S Chatterjee





UNIVERSITIES PRESS (INDIA) PRIVATE LIMITED

Registered Office

3-6-747/1/A & 3-6-754/1, Himayatnagar, Hyderabad 500 029 (A.P.), India E-mail: info@universitiespress.com; Web: www.universitiespress.com

Distributed by
Orient Blackswan Private Limited

Registered Office 3-6-752 Himayatnagar, Hyderabad 500 029 (A.P.), India

Other Offices

Bangalore / Bhopal / Bhubaneshwar / Chandigarh / Chennai / Ernakulam / Guwahati Hyderabad / Jaipur / Kolkata / Lucknow / Mumbai / New Delhi / Noida / Patna

© Universities Press (India) Private Limited 2012 First published 2012

ISBN 978 81 7371 748 2

All rights reserved. No part of this book may be reproduced or utilised in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage or retrieval systems, without permission in writing from the publisher.

Cover and book design

© Universities Press (India) Private Limited 2012

Typeset in AmeriGarmnd BT 11/13 by OSDATA, Hyderabad 500 049

Printed at Graphica Printers Hyderabad 500 013

Published by
Universities Press (India) Private Limited
3-6-747/1/A & 3-6-754/1, Himayatnagar
Hyderabad 500 029 (A.P.), India

Contents

	Foreword	ix
	Acknowledgements	xi
	Prologue	xix
1.	Background	1
2.	Childhood and Schooling	7
3.	College Years	28
4.	Science Education and Its Beginnings in Calcutta	50
5.	Calcutta	59
6.	Scattering of Light	70
7.	Discovery of the Raman Effect	85
8.	Dacca	107
9.	Bonds of Magnetism I: The Dacca Phase	113
10.	Winds of Change	132
11.	Bonds of Magnetism II: The Calcutta Phase	157
12.	Graphite and Its Anomalous Diamagnetism	194
13.	Honours and Offers	205
14.	The Physics Chair at Allahabad	227
15.	Rejuvenating Physics in Allahabad	240
16.	The Widening Vista	256
17.	Krishnan in Delhi	278
18.	NPL: The Initial Years	304
19.	Oscillating Lattices, Emitting Surfaces, Heated Tubes	336
20.	The Broader Stage	349
21.	Into the Twilight	384
	Appendix:	
	1. Raman Scattering	412
	2. Diamagnetic and Paramagnetic Susceptibilities	416
	3. Formulae for Electrical Resistivity of Metals	422
	Primary Sources	426
	Bibliography	428
	Index	440