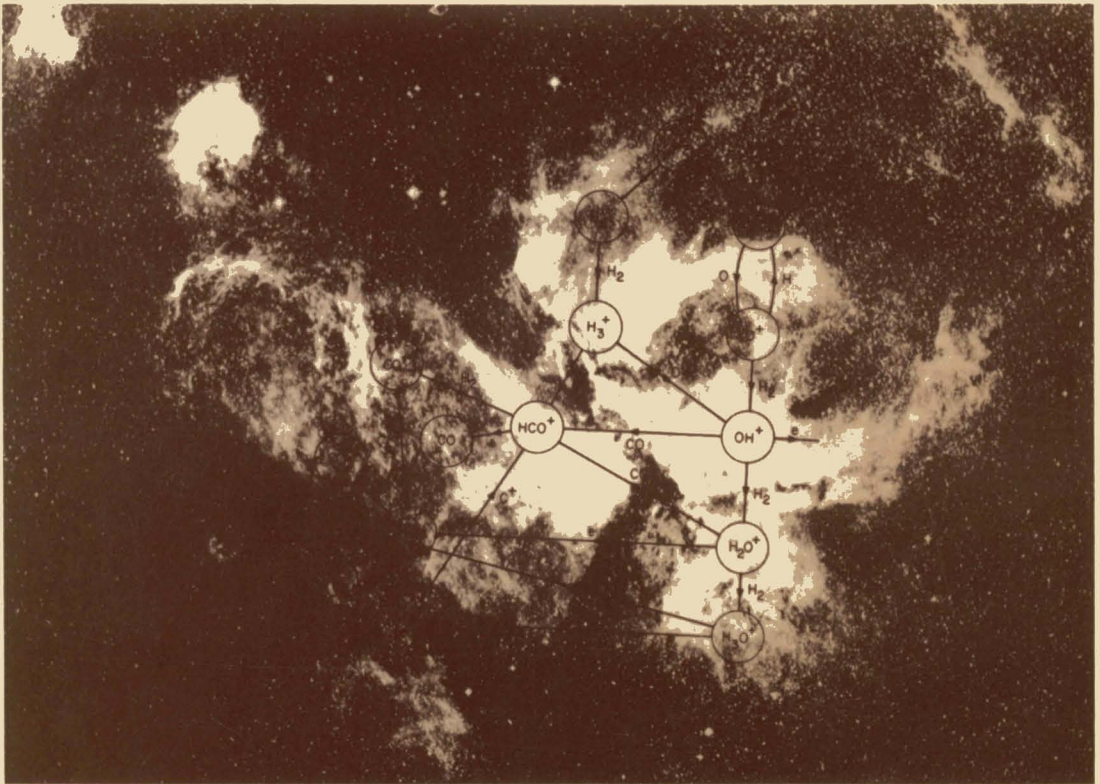


INTERNATIONAL ASTRONOMICAL UNION

SYMPOSIUM No. 120

ASTROCHEMISTRY

Edited by M. S. VARDYA and S. P. TARAFDAR



INTERNATIONAL ASTRONOMICAL UNION

D. REIDEL PUBLISHING COMPANY

ASTROCHEMISTRY

INTERNATIONAL ASTRONOMICAL UNION
UNION ASTRONOMIQUE INTERNATIONALE

ASTROCHEMISTRY

PROCEEDINGS OF THE 120TH SYMPOSIUM OF THE
INTERNATIONAL ASTRONOMICAL UNION
HELD AT GOA, INDIA,
DECEMBER 3-7, 1985

EDITED BY

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and

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*Tata Institute of Fundamental Research,
Bombay, India*

D. REIDEL PUBLISHING COMPANY

A MEMBER OF THE KLUWER



ACADEMIC PUBLISHERS GROUP

DORDRECHT / BOSTON / LANCASTER / TOKYO



Library of Congress Cataloging in Publication Data

International Astronomical Union. Symposium
(120th: 1985: Velha Goa, India)

Astrochemistry: proceedings of the 120th Symposium of the International
Astronomical Union, held at Goa, India, December 3–7, 1985.

CIP

At head of title: International Astronomical Union = Union astronomique
internationale.

Sponsored by IAU Commission No. 34 et al.

Includes indexes.

1. Cosmochemistry—Congresses. 2. Interstellar molecules—Congresses.

I. Vardya, M. S., 1933– . II. Tarafdar, S. P.,
1938– . III. International Astronomical Union. IV. International
Astronomical Union. Commission No. 34. V. Title.

QB450.I58 1985 523.02 86–21940

ISBN 90–277–2359–1

ISBN 90–277–2360–5 (pbk.)

*Published on behalf of
the International Astronomical Union
by*

D. Reidel Publishing Company, P. O. Box 17, 3300 AA Dordrecht, Holland

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*Sold and distributed in the U.S.A. and Canada
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101 Philip Drive, Assinippi Park, Norwell, MA 02061, U.S.A.*

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Printed in The Netherlands

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PREFACE

The chemical processes of formation and destruction of molecules have been found to be widespread in astronomical scenario. It occurs in comets, planetary atmospheres including ionospheres, early solar system, stellar atmospheres, circumstellar shells, interstellar clouds, and possibly even in the early universe. Physical conditions are naturally different in the different situations, but there is unity in the underlying physics and chemistry in this diversity. Therefore, a need was felt to gather together astronomers, physicists and chemists in these and allied interdisciplinary fields to enrich each other with their experiences. This International Astronomical Union Symposium No.120 on Astrochemistry, the proceedings of which is this, has partially fulfilled this need.

This Symposium, held at the beautiful and scenic sea resort of Goa, India, between December 3-7, 1985, under the sponsorship of the IAU Commission No.34 and co-sponsorship of IAU Commissions 14, 15, 29 and 36, was attended by 116 registered participants with 19 accompanied guests from 19 countries. The scientific programme comprised of 34 review talks, 15 invited talks and 47 contributed poster papers, climaxed by a grand finale by Professor A. Dalgarno with an overview of the whole Symposium. The Symposium covered almost all aspects of astrochemistry from the early universe to comets and meteorites, except ionospheres and planetary atmospheres. Basic atomic and molecular physics, experimental and observational results, and theoretical calculations and modelling, all were stressed.

The manuscripts were received in 'camera-ready' form and were subjected in rare cases, to minor alterations. The discussions were prepared from question-answer sheets and from tape recordings.

The financial support from the International Astronomical Union, the National Organizing Committee of the XIXth General Assembly (Delhi), Tata Institute of Fundamental Research, the State Government of Goa, Daman and Diu, as well as from Walchandnagar Industries (Bombay), V.S. Dempo & Co. (Goa), and D.B. Bhandarkar & Sons (Goa) is gratefully acknowledged.

We are greatly indebted to Professor A. Dalgarno, Chairman of the Scientific Organizing Committee, for the success of this Conference. He not only took great pains in organising the scientific content of the program, but went out of his way in getting the speakers as well. We are thankful to Drs. A. Aiad, M.S. Chadha, P.A. Feldman, P.K. Ghosh, P.S. Goel, B.N. Khare, W.D. Langer, D. McNally, S.K. Mitra, E. Roueff, M.M. Shapiro, W.B. Somerville, J.M.V. Storey, J.B. Tatum and V.R. Venugopal for chairing the various scientific sessions. It is a pleasure to thank Professor B.V. Sreekantan, Director, Tata Institute of Fundamental Research, for putting the various facilities of the Institute at our disposal, which helped immensely in the organization

and planning of this Symposium. Last but not the least, we are thankful to a host of other persons, who have helped in various ways in making the Symposium a success.

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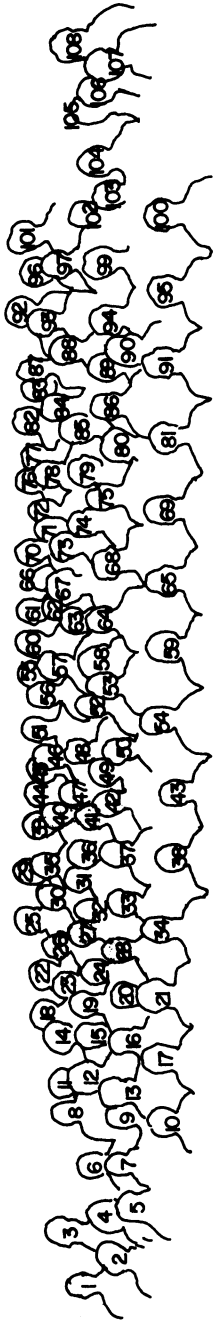
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