

Mines Branch Information Circular IC 130

BIBLIOGRAPHY OF HIGH-TEMPERATURE CONDENSED
STATES RESEARCH IN CANADA AND ELSEWHERE,
APRIL TO JUNE, 1961

by

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SYNOPSIS

This is the seventh quarterly bulletin of bibliographic information on high-temperature condensed states research. It contains references to papers in this field published in Canadian journals during the period April to June, 1961. Also included are bibliographies of such work published in Australia, Austria, France and Belgium, Germany, Great Britain, the Netherlands, Scandinavia, the United States and the U.S.S.R. during the period January to March, 1961.

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Direction des mines

Circulaire d'information IC 130

BIBLIOGRAPHIE DES RECHERCHES EFFECTUÉES DANS LE DOMAINE
DES ÉTATS CONDENSÉS AUX TEMPÉRATURES ÉLEVÉES, AU
CANADA ET AILLEURS, D'AVRIL À JUIN 1961

par

Norman F.H. Bright*

RÉSUMÉ

Voici la septième circulaire trimestrielle d'information sur les recherches effectuées dans le domaine des états condensés aux températures élevées. Elle contient une bibliographie des études dans ce domaine publiées dans les revues techniques du Canada au cours de la période comprise entre avril et juin 1961. On y trouve également la bibliographie des travaux dans ce secteur qui ont été publiés en Australie, en Autriche, en Belgique, en France, en Allemagne, en Grande-Bretagne, aux Pays-Bas, en Scandinavie, aux États-Unis et en URSS, au cours de la période comprise entre janvier et mars 1961.

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INTRODUCTION

This report represents a further contribution to the quarterly series of bibliographic bulletins on high-temperature condensed states research which have been published on behalf of the Sub-commission on Condensed States of the Commission on High Temperatures and Refractories of the International Union of Pure and Applied Chemistry. These have appeared at intervals since March, 1960, as Mines Branch Information Circulars.

Since the publication of the most recent Information Circular, IC 128, in this series in July, 1961, covering the period January to March, 1961, no additional information has become available concerning the location and fields of interest of workers on high-temperature condensed states research. However, for the first time in the course of this series of bulletins, a bibliography prepared in the Netherlands, dealing with work published in journals of that country, is presented.

In the present circular, the following information is provided:-

- (i) The results of a literature search by the writer through scientific journals published in Canada during the period April to June, 1961, for papers dealing with research on the various aspects of the relevant field.

(ii) Bibliographies of work published during the period

January to March, 1961, in Australia, Austria, France and Belgium, Germany, Great Britain, the Netherlands, Scandinavia, the United States and the U.S.S.R.

These bibliographies have been assembled by the scientists

named hereafter, and have been supplied to the writer

by Dr. Marc Foex, Secretary of the Sub-commission on Condensed States. Certain additional information

has been supplied to the writer by Dr. J.J. Diamond

of the National Bureau of Standards, Washington, D.C.

Australia --- Dr. E. McCartney, University of New South Wales, Sydney, Australia.

Austria --- Professor H. Nowotny, Vienna, Austria.

France and Belgium --- Dr. M. Foex, MontLouis, Pyrénées Orientales, France.

Germany --- Professor H. Nowotny, Vienna, Austria.

Great Britain --- Dr. J.P.H. Shaw, Imperial Chemical Industries Limited, Widnes, Lancashire, England.

Netherlands --- Professor G.D. Rieck, Eindhoven, The Netherlands.

Scandinavia --- Professor Gunnar Hagg, Uppsala, Sweden.

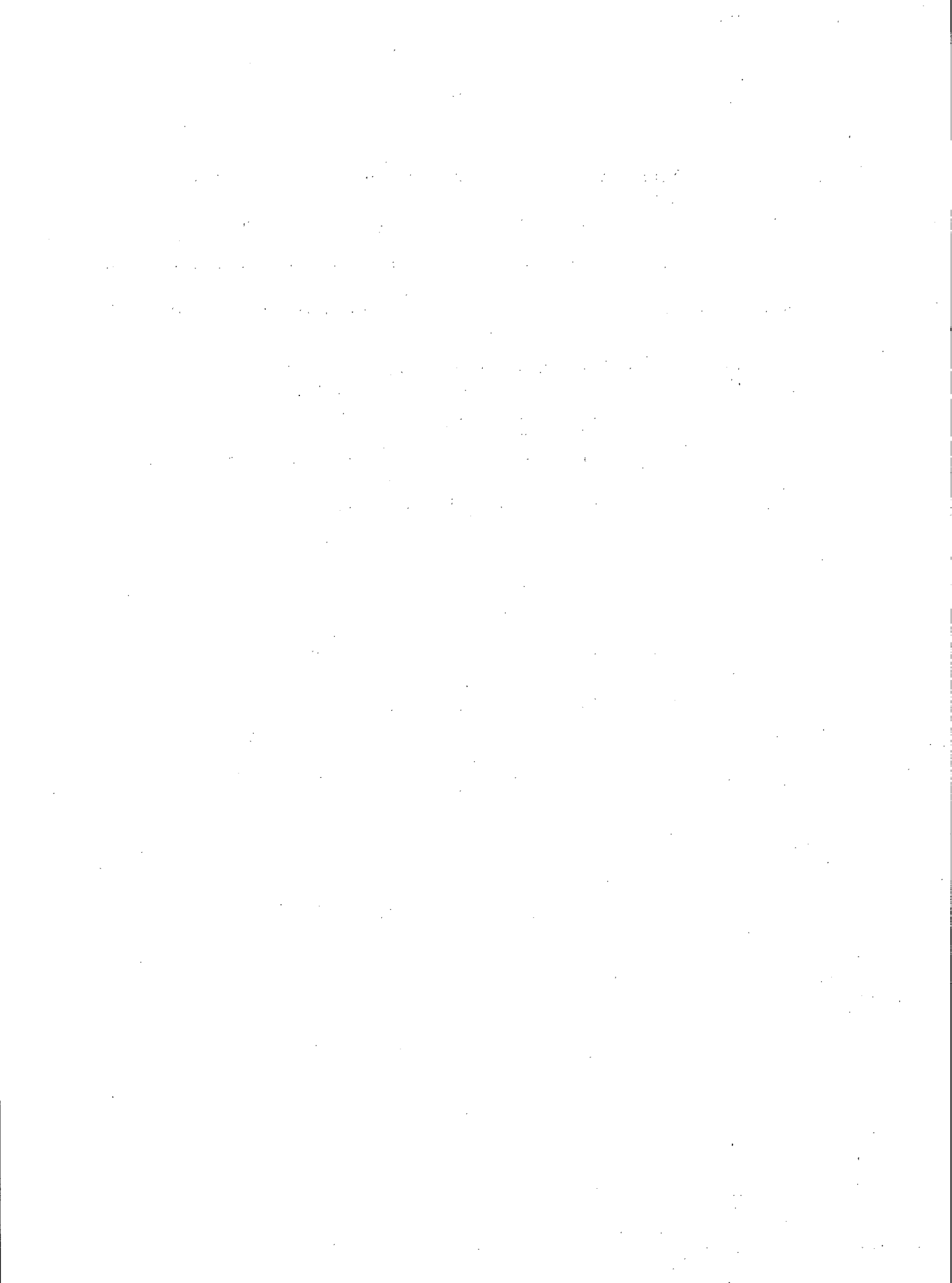
U.S.A. --- Dr. J.J. Diamond, N.B.S., Washington, D.C.

U.S.S.R. --- from information collected by the "Centre National de la Recherche Scientifique" of France, and supplied to the writer by Dr. M. Foex.

Again, as in the case of previous Information Circulars in this series, the writer would appreciate being advised of any errors or omissions in the various sections of the present document.

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PART I

BIBLIOGRAPHY ON WORK ON HIGH-TEMPERATURE
CONDENSED STATES PUBLISHED IN CANADA
IN APRIL-JUNE, 1961

International Union of Pure and Applied Chemistry
Commission on High Temperatures and Refractories
Sub-commission on Condensed States

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M.J. Laubitz.
Canad. Journ. Phys., 39 6, 951, (1961).

B. Devices for measuring and controlling high temperatures

nil

C. Devices for physical measurements at high temperatures

nil

D. Properties of refractory phases and systems studied at lower temperatures

a. Metallic systems

1. Spectrophotometric determination of aluminum in uranium metal and its compounds.
A.W. Ashbrook and G.M. Ritcey.
Canad. Journ. Chem., 39 5, 1109, (1961).
2. The Knight shift of cadmium in some alloys with Group IB and IIB metals.
R.F. Grant and W.G. Henry.
Canad. Journ. Phys., 39 6, 841, (1961).

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R.D. Heyding and L.D. Calvert.
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J.A. Bland and S.N. Flengas.
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2. Effect of two-dimensional mechanical stress on the dielectric properties of poled ceramic barium titanate and lead zirconate-titanate.
R.F. Brown.
Canad. Journ. Phys., 39 5, 741, (1961).
3. A look at carbon black.
E. Dannenberg.
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8. Some rheological parameters of clays and their thixotropic behaviour.
A.S. Yalcin and R. McIntosh.
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Kin Tso and M. Boudart.
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b. Non-metallic systems

1. The electrical conductivity of liquid tin (II) sulphide.
D. Boutin and M. Bourgon.
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F. Properties of non-refractory phases and systems at high temperatures

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nil

b. Non-metallic systems

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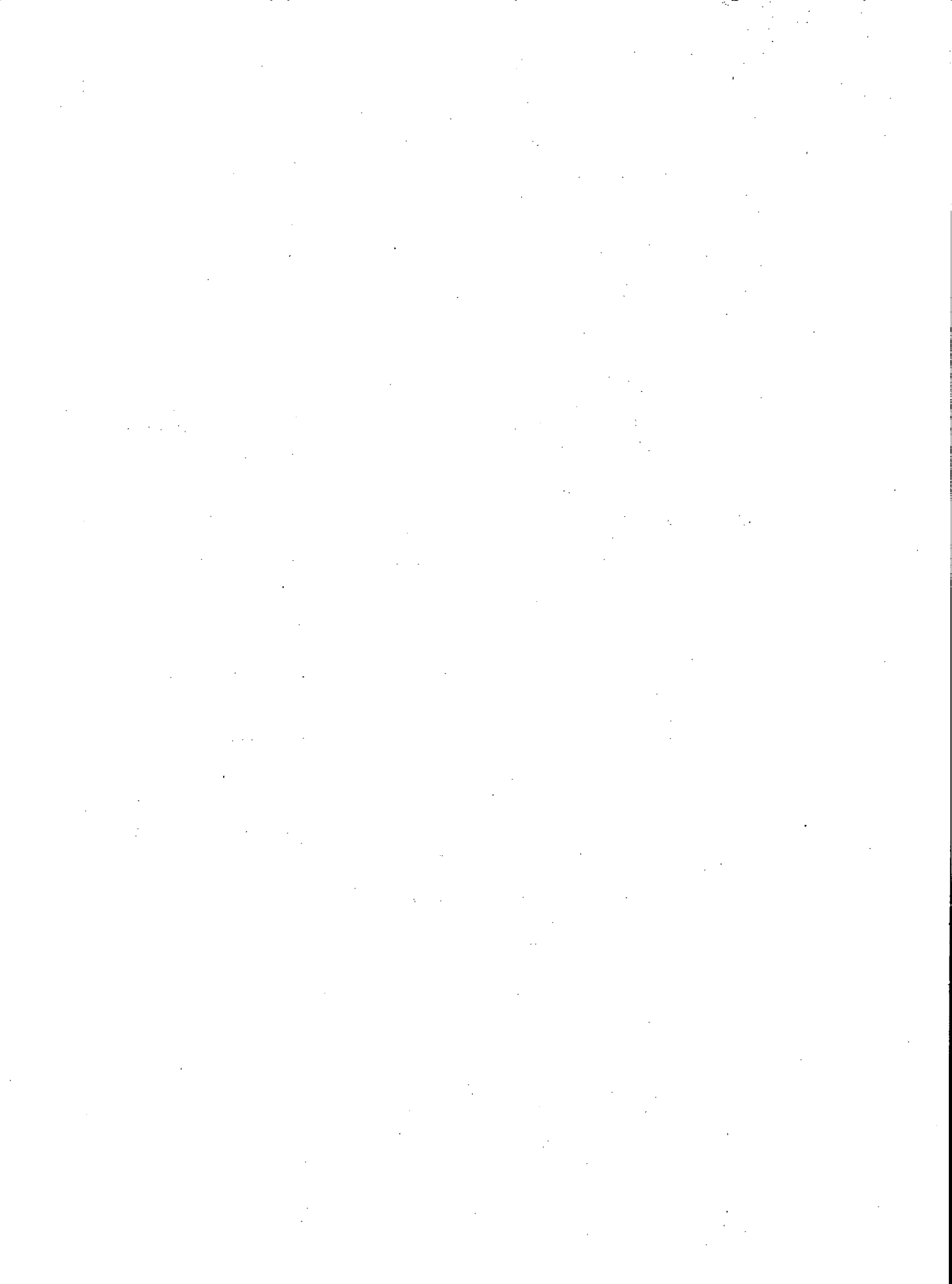
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PART II

BIBLIOGRAPHY OF WORK ON HIGH-TEMPERATURE

CONDENSED STATES PUBLISHED ELSEWHERE

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- b) Austria, January-March, 1961,
- c) France and Belgium, January-March, 1961,
- d) Germany, January-March, 1961,
- e) Great Britain, January-March, 1961,
- f) Netherlands, January-March, 1961,
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- i) U.S.S.R., January-March, 1961.

International Union of Pure and Applied Chemistry
Commission on High Temperatures and Refractories
Sub-commission on Condensed States

Bibliography (January, February, March, 1961)

for Australia

collected by Dr. E. McCartney, University of New South Wales, Sydney

A. Devices for achieving high temperatures

nil

B. Devices for measuring and controlling high temperatures

nil

C. Devices for physical measurements at high temperatures

nil

D. Properties of refractory phases and systems studied at lower temperatures

a. Metallic systems

nil

b. Non-metallic systems

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J.A. Allen (Dept. of Chemistry, Newcastle University
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Aust. J. Chem., 13 No. 4, 431, (1960).

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R.V. Culver and H. Watts (South Australian Institute of Technology, Adelaide).
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high temperatures

a. Metallic systems

nil

b. Non-metallic systems

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R.D. Hill and D.N. Crook (Div. of Building Research,
Commonwealth Scientific and Industrial Research
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F. Properties of non-refractory phases and systems at
high temperatures

nil

G. Phase equilibria

nil

H. Reactions (physical and chemical) at high temperatures

nil

I. General

1. The thermal conductivity of molten salts. I: A
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3. The general theory of the motions of ions and electrons in gases.
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F.D. Stacey (Geophysics Dept., Australian National University, Canberra).
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H. Nowotny, H. Braun and F. Benesovsky (Metallwerk
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Commission on High Temperatures and Refractories
Sub-commission on Condensed States

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J. Oualid (Laboratoire de Physique P.C.B., Faculté des Sciences, Alger).
Journal de Physique et le Radium, 22, 124, (1961).
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R. Lucas.
C.R. Acad. Sci., 252, 852, (1961).
5. Étude expérimentale du mécanisme de transfert de la chaleur dans les bains de trempe.
B. George, R. Bigot and R. Faivre (Laboratoire de Physique de la Faculté des Sciences et École Nationale Supérieure de la Métallurgie et des Industries des Mines, Nancy).
C.R. Acad. Sci., 252, 1916, (1961).
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M. Bizouard and F. Pauty (Laboratoire de Physique Générale, Faculté des Sciences, Dijon, Côte d'Or).
C.R. Acad. Sci., 252, 514, (1961).
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P. Valentin.
Annales de Physique, 6, 271, (1961).

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E. Plumat and M. Jaupain (Laboratoire de Recherches de l'Union des Verreries Mécaniques Belges).
Silicates Industriels, Bruxelles, 26, 119, (1961).
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J. Vilnat (Laboratoire de Chimie Physique de la Société Française de Céramique).
Bulletin de la Société Française de Céramique, 50, 63, (1961).

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a. Metallic systems

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L. Bonnetain (Faculté des Sciences de Nancy, Meurthe et Moselle).
Journal de Chimie Physique, 58, 34, (1961).

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E. Bauer (Commissariat à l'Énergie Atomique, Saclay, Seine et Oise).
Journal de Chimie Physique, 58, 47, (1961).
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Journal de Chimie Physique, 58, 47, (1961).
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W.J. Thomas (Atomic Energy Research Establishment, Harwell).
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M. Perez-y-Jorba, H. Mondange and R. Collongues (Centre de Chimie Métallurgique du C.N.R.S., Vitry, Seine).
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Pao-Hsien Fang, C. Robbins and F. Forrat (National Bureau of Standards, Washington, D.C., U.S.A. and Centre d'Études Nucléaires, Grenoble, Isère).
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for Scandinavia

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nil

B. Devices for measuring and controlling high temperatures

nil

C. Devices for physical measurements at high temperatures

nil

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International Union of Pure and Applied Chemistry
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nil

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nil

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nil

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