Mines Branch Information Circular IC 218

BIBLIOGRAPHY OF HIGH-TEMPERATURE CONDENSED STATES RESEARCH PUBLISHED IN CANADA, JANUARY - MARCH, 1969

by

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SYNOPSIS

This report contains bibliographic information concerning research work on high-temperature condensed states published in Canadian journals from January 1 to March 31, 1969.

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BIBLIOGRAPHIE DES RECHERCHES EFFECTUÉES DANS LE DOMAINE DES ÉTATS CONDENSÉS AUX TEMPÉRATURES ÉLEVÉES, AU CANADA, DE JANVIER À MARS, 1969

par

Norman F.H. Bright*

RÉSUMÉ

Le présent rapport contient des renseignements bibliographiques sur les recherches effectuées sur les états condensés aux températures élevées, publiées dans les revues scientifiques canadiennes au cours de la période de janvier 1 à mars 31, 1969.

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INTRODUCTION

This report is a further contribution to the series of bibliographic bulletins of information on high-temperature condensed states research that have been published as Mines Branch Information Circulars since March 1960 on behalf of the Commission on High Temperatures and Refractories of the International Union of Pure and Applied Chemistry. The present document covers the three-month period from January 1 to March 31, 1969, and gives details of work published in Canadian scientific and technical journals during that period.

Anyone not now receiving these reports who wishes to do so, or anyone who currently receives these bibliographies but to whom they are no longer of interest, is requested to advise the compiler accordingly so that the appropriate changes may be made in the relevant mailing lists.

The compiler would very much appreciate being advised of any work published in Canadian journals, and lying within the scope of these bibliographies, that has escaped his notice in order that such work may be mentioned in a subsequent issue of this series of Information Circulars.

Any further information concerning these bibliographies or any of the other relevant IUPAC activities can be obtained from the compiler of this report at the following address:

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The attention of all recipients of these bibliographies is particularly drawn to the enclosed notice issued by the National Bureau of Standards, Washington, D.C. It refers to the international bibliographies compiled and published by that organization that have been distributed gratis along with the Canadian documents for several years. Recipients will note that this gratis distribution of the international bibliographies is now to be discontinued. Those who, in future, wish to receive either these documents, or the corresponding gaseous-state bibliographies that have been compiled by Professor Leo Brewer of the University of California, should complete and return the form to be found facing page 68 of the present issue.

The Canadian bibliography will continue to be prepared on a quarterly basis and distributed as heretofore, but, of course, no N.B.S. document will be included in the future.

BIBLIOGRAPHY OF WORK ON HIGH-TEMPERATURE CONDENSED STATES PUBLISHED IN CANADA, JANUARY - MARCH, 1969

International Union of Pure and Applied Chemistry
Commission on High Temperatures and Refractories

Bibliography (January 1 to March 31, 1969)
for Canada

collected by Dr. Norman F.H. Bright, Mines Branch, Ottawa

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A. Devices for achieving temperatures above 1500°C

Nil

B. Devices for measuring and controlling temperatures above 1500°C

Nil

C. Devices for physical measurements at temperatures above 1000°C

Nil

D. Properties, at temperatures below 1000°C, of materials that melt above 1500°C

a. Metallic materials

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H.M. Love and H.D. Wiederick (Department of Physics, Queen's University, Kingston, Ontario).
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L.P. Trudeau (Physical Metallurgy Division, Mines Branch, Department of Energy, Mines and Resources, Ottawa, Ontario).
Mines Branch Research Report R 201, January 1969 (Mines Branch, Department of Energy, Mines and Resources, Ottawa).

b. Non-metallic materials

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Mines Branch Technical Bulletin TB 106, January 1969 (Mines Branch, Department of Energy, Mines and Resources, Ottawa).

2. Isomerization of Butene over a Chromia-Alumina Catalyst.
H.C. Chen, R.R. Hudgins and P.L. Silveston (Department of Chemical Engineering, University of Waterloo, Waterloo, Ontario).
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D.C. Fowlis and C.V. Stager (Department of Physics and Institute for Materials Research, McMaster University, Hamilton, Ontario).
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4. Pyrochlores: V. Thermoanalytic, X-Ray, Neutron, Infrared and Dielectric Studies of $A_2Ti_2O_7$ Titanates.
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6. Interpretation of Methane Adsorption on Activated Carbon by Non-isothermal and Isothermal Calculations.
Robert G. Lee and Thomas W. Weber (Department of Chemical Engineering, State University of New York, Buffalo, New York, U.S.A.)
Canad. Journ. Chem. Engg., 47 [1], 60-65 (1969).

7. On the Origin of Defect States in Calcium Tungstate.
M. Sayer and A.D. Souder (Department of Physics, Queen's University, Kingston, Ontario).
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8. Low-Density Catalysts and Catalyst Supports: Part I. The Preparation of Highly Porous Alumina.
G.T. Shaw and B.I. Parsons (Fuels Research Centre, Mines Branch, Department of Energy, Mines and Resources, Ottawa, Ontario).
Mines Branch Research Report R 199, December 1968 (Mines Branch, Department of Energy, Mines and Resources, Ottawa).

c. Mixed materials

1. Diffusion-Controlled Adsorption Processes.
R.B. Anderson, A.E. Hamielec and G.R. Stifel (Department of Chemical Engineering, McMaster University, Hamilton, Ontario).
Canad. Journ. Chem. Engg., 47 [6], 419-423 (1969).

E. Properties, at temperatures above 1000°C, of materials that melt above 1500°C

a. Metallic materials

1. Quantitative Estimation by Emission Spectrographic Analysis of Impurity Traces in Purified Graphite.
P. Maillard and C. Ades (Le Carbone Lorraine, Paris 17, France).
Canad. Spectroscopy, 14 [1], 17-20 (1969).

2. Canada's Historic First Iron Castings.
Harry Miller (Sutton, Quebec).
Mines Branch Information Circular IC 209, December 1968 (Mines Branch, Department of Energy, Mines and Resources, Ottawa).

b. Non-metallic materials

Nil

c. Mixed materials

Nil

F. Properties, at temperatures above 1000°C, of materials that melt below 1500°C

a. Metallic materials

Nil

b. Non-metallic materials

Nil

c. Mixed materials

Nil

G Phase Equilibria

1. The Silver-Calcium Phase Diagram.
W.A. Alexander, L.D. Calvert, A. Desaulniers, H.S. Dunsmore and D.F. Sargent (Division of Applied Chemistry, National Research Council of Canada, Ottawa, Ontario).
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1. Reaction of Mixed Magnesium-Aluminum and Calcium-Aluminum Hydroxides with Wyoming Bentonite.
J.S. Clark and G.J. Ross (Soil Research Institute, Canada Department of Agriculture, Ottawa, Ontario).
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2. Kinetics of Cupric Oxide Catalyzed Oxidation of Propylene in a Stirred Reactor.
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4. Molybdenum in the World Today.
   E. A. Scholz (Placer Development Limited, Vancouver, British Columbia).
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5. Introduction to the Science of Process Metallurgy.
   N. J. Themelis (Noranda Research Centre, Pointe Claire, Quebec).
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