Mines Branch Information Circular IC 146

BIBLIOGRAPHY OF HIGH-TEMPERATURE CONDENSED STATES RESEARCH IN CANADA, OCTOBER-DECEMBER, 1962

by

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SYNOPSIS

This report contains bibliographic information concerning research work on high-temperature condensed states published in Canadian journals during the period October, November and December, 1962.

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Circulaire d'information IC 146

BIBLIOGRAPHIE DES RECHERCHES EFFECTUÉES AU CANADA DANS LE DOMAINE DES ÉTATS CONDENSÉS AUX TEMPÉRATURES ÉLEVÉES D'OCTOBRE À DÉCEMBRE, 1962

par

Norman F.H. Bright*

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RÉSUMÉ

Le présent rapport contient des données bibliographiques sur les recherches effectuées dans le domaine des états condensés aux températures élevées, dont les résultats ont été publiés dans les revues techniques du Canada au cours de la période comprise entre octobre et décembre, 1962.

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INTRODUCTION

This report is a further contribution to the quarterly 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 Sub-commission on Condensed States of the Commission on High Temperatures and Refractories of the International Union of Pure and Applied Chemistry.

This present document contains a bibliography of work in this field published in Canadian scientific and technical journals during the period October, November and December, 1962.

Any further information concerning these bibliographies can be obtained from the writer of this report at the following address:

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The writer is particularly anxious that anyone not currently receiving these reports, but who would wish to do so, should be added to the mailing list. Similarly, anyone currently on the mailing list to whom these reports are no longer of interest is requested to advise the writer accordingly, so that the name may be removed from the mailing list.

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

BIBLIOGRAPHY OF WORK ON HIGH-TEMPERATURE CONDENSED STATES PUBLISHED IN CANADA IN OCTOBER-DECEMBER, 1962

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

Bibliography (October, November, December, 1962)

for Canada

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

A. Devices for achieving temperatures above 1500°C

1. Jet smelting.
Anonymous.
Canad. Metalworking, 25 [11], 23-24 (1962).

2. Optimum process design for a heat-exchanger type of reactor.
Hiroshi Kubota.
Canad. Journ. Chem. Engg., 40 [5], 194-196 (1962).

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

1. Study of fatigue in metals using an ultrasonic technique.
W.J. Bratina and D. Mills.
Canad. Metall. Quarterly, 1 [2], 83-97 (1962).

2. Radiation and toxicity hazards of uranium alloys.
G.G. Eichholz.
Canad. Nucl. Technol., 1 [5], 33-34 (1962).

3. Work function of the (311) plane of tungsten.
H.M. Love and G.L. Dyer.
Canad. Journ. Phys., 40 [12], 1837-1840 (1962).

b. Non-metallic materials

1. Electrochemistry of the nickel oxide electrode. IV: Electrochemical kinetic studies of reversible potentials as a function of degree of oxidation.
B.E. Conway and E. Gileadi.
Canad. Journ. Chem., 40 [10], 1933-1942 (1962).

2. Photoconductivity in cuprous oxide single crystals.
E. Fortin and F.L. Weichman.
Canad. Journ. Phys., 40 [12], 1703-1713 (1962).

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

a. Metallic materials

nil

b. Non-metallic materials

1. The "best" refractory.
G.R. Rigby.
Canad. Metalworking, 25 [12], 37-40 (1962).

2. Blast furnace supplementary fuels.
W.R. Rombough.
Canad. Min. Metall. Bull., 55 [608], 839-842 (1962).

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

nil

G. Phase equilibria

1. The initial lattice distortions of manganese in copper, silver and gold.
L.D. Calvert and W.G. Henry.
Canad. Journ. Phys., 40 [10], 1411-1416 (1962).

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3. Critical temperatures and pressures of substances from vapour pressure data.
L.I. Stiel and G. Thodos.
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1. Comparison of various coolants in the basic oxygen steelmaking process.
T.S. Plaskett and W.A. Morgan.
Canad. Metall. Quarterly, 1 [2], 99-108 (1962).

2. Some new ionic concepts of silicate slags.
G.W. Toop and C.S. Samis.
Canad. Metall. Quarterly, 1 [2], 129-152 (1962).

3. Kinetic studies of the thermal decomposition of ferric sulphate and aluminum sulphate.
N.A. Warner and T.R. Ingraham.
Canad. Journ. Chem. Engg., 40 [6], 263-267 (1962).
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Review Articles

1. Iron ore pelletizing--a literature survey.
G.N. Banks, R.A. Campbell and G.E. Viens.
Canad. Min. Metall. Bull., 55 [608], 853-858 (1962).

2. Extraction metallurgy.
K.W. Downes.
Chemistry in Canada, 14 [10], 40-42 (1962).

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