

## University of Wyoming-American Heritage Center

Guide to the

E.F Osborn Collection

Accession # 3590



May 28, 1971

## THE E. F. OSBORN COLLECTION

RECEIPT for the gift received of E. F. Osborn:

Two large notebooks containing publications of E. F. Osborn as author or co-author. Volume 1, 1936-1956. Volume 2, 1954-1967. College of Mineral Industries, The Pennsylvania State University.

## CONTENTS OF NOTEBOOKS:

Behre, Chas. H., Jr., E. F. Osborn, & E. H. Rainwater, "Contact Ore Deposition at the Calumet Iron Mine, Colorado", reprint from ECONOMIC GEOLOGY, December 1936. xerox copy.

Osborn, E. F., "Structural Petrology of the Val Verde Tonalite, Southern California", GEOLOGICAL SOCIETY OF AMERICA, 1939

Osborn, E. F. and J. F. Schairer, "The Ternary System Pseudo-Wallastonite-Ackermanite-Gehlenite", Geophysical Laboratory, AMERICAN JUURNAL OF SCIENCE. October 1944. xerox copy.

Osborn, E. F., "The System CaSiO $_3$ -Dippside-Anorthite", reprint from AMERICAN JOURNAL OF SCIENCE. November 1942

Osborn, E. F., "The Compound Herwinite (3Ca0-Mg0-Si02), (Preliminary Report), JOURNAL OF THE AMERICAN CERAMIC SOCIETY, October 1, 1943. xerox copy.

Osborn, E. F., "Silicate Chemistry & Petrology", Pirson, Sylvain, "investigating the Possibilities of New Mineral Deposits in Pennsylvania", Pirson, Sylvain, "Geophysical Exploration for Ground Water Supplies", Neilson, R. F., "Smokes As Selective Plugging Agents in Oil Production by Air Gas Drive", all from "The Compass", of Sigma Gamma Epsilon, 1948. Xerox Copy.



NOTEBOOKS: continued:

Osborn, E. F., "Cellular Structures in Glass as Related to Structures in Lava Abstract", JOURNAL OF BEOLOGY, March 10, 1948. xerox copy.

Roy, Rustum, and E. F. Osborn, "The System Lithium Metasilicate-Spodumene-Silica", reprint from the JOURNAL OF AMERICAN CHEMICAL SOCIETY, 1949. xerox copy.

Ervin, Guy, Jr., and E. F. Osborn, "X-Ray Data on Synthitic Melilites", reprint from AMERICAN MINEROLOGIST, 1940. xerox copy.

Schairer, J. F., and E. F. Osborn, "The System Ca0-Mg0-Fe0-Si0: 1, Preliminary Data on the Join CaSi0, -Mg0-Fe0", JOURNAL OF THE AMERICAN CERAMIC SOCIETY, May 1950, xerox copy.

Osborn, E. F., "Segregation of Elements During Crystallization of a Magma", JOURNAL OF AMERICAN CERAMIC SOCIETY, July 1950. xerox copy.

Roy, Della M., Rustum, Roy and E. F. Osborn, "Phase Relations and Structural Phenomena in the Fluoride-Model Systems LiF-BeF, and NaF-BeF,", JOURNAL OF THE AMERICAN CERAMIC SOCIETY, March 1950. xerox copy.

Roy, Rustum, Della M. Roy, and E. F. Osborn, "Compositional and Stability Relationships among the Lithium Aluminosilicates: Eucryptite Spodumene and Petalite", JOUENLL OF AMERICAN CERAMIC SOCIETY, May 1950. xerox copy.

United States PATENT Offoce, patented July 25, 1950. (2,516,249) "Forsterite Refactory Made From Natural Magnesium Silicates". Elburt F. Osborn, assignor. xero copy.

Ervin, Guy, Jr., & E. F. Osborn, "The System Al\_O, -H\_O", reprint from the JOURNAL OF GEOLOGY, July 1951.

Muan, Arnulf, and E. F. Osborn, "Fundamental Investigation of Steel Plant Refractories Problems: I, Phase Relations In the System 2CaO. SiO. &Ca. Al. Og. SiO. FeO". reprint of paper to be read before General Meeting of the American Iron and Steel Institute, May 23-14, 1951

United States Patent OFFICE, PATENTED March 25, 1952 (2,590,566) "Hydrothermal Syntheses of Forsterite", Elburt F. Osborn, assignor.

Book review: "Principles of Geochemistry", by Brian Mason, John Wiley & Sons, 1952.

Roy, Rustum, V. G. Hill and E. F. Osborn, "Polymorphism of Ga\_O and the System Ga\_O -H\_O", reprint from the JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, 1952.





NOTEBOOKS, continued:

Hill, V. G., Rustum Roy and E. F. Osborn, "The System Alumina-Gailla-Water", reprint from the JOURNAL OF THE AMERICAN CERAMIC SOCIETY, 1952, xerox.

Osborn, R. F., and D. B. Tait, "The System Diopside-Forsterite-Anorthite" Department of Earth Scelnces, The Pennsylvania State College, 1940-41.

Roy, Rustum and E. F. Osborn, "Studies in the System Slumina-silica-water", reprint from PROBLEMS OF CLAY AND LATERITE GENESIS SYMPOSIUM 1952

Roy, Rustum and E. F. Osborn, "Some Simple Aids in the Hydrothermal Investigation of Mineral systems", reprint from ECONOMIC GEOLOGY, November 1952

Osborn, E. F., "Fluoride Models", reprint from CERAMIC AGE, November 1952

Counts, W. E., Rustum Roy and E. F. Osborn, "Fluoride Model Systems; II, The Binary Systems CaF, -BeF, MgF, -BeF, and LiF-MgF,", reprint from the JOURNAL OF THE AMERICAN CERAMIC SOCIETY, January 1953

Roy, Rustum, V. G. Hill and E. F. Osborn, "Polymounts of Alumina and Gallia", reprint from INDUSTRIAL AND ENGINEERING CHEMISTRY, April 1953

Osborn, E. F., "Subsolidus Reactions In Oxide Systems In the Presence of Water at High Pressures", reprint from THE JOURNAL OF THE AMERICAN CERAMIC SOCIETY, May 1953

Roy, Rustum, Della M. Roy and E. F. Osborn, "Fluoride Model Systems: III, The System NaF-BeF and the Polymorphism of Na BeF, and BeF,", reprint from THE JOURNAL OF THE AMERICAN CERAMIC SOCIETY, June 1953

Roy, Della M., Rutes Roy and E. F. Osborn, "The System Mg0-Al Os-H.O and Influence of Carbonate and Nitrate lons on the Phase Equilibria reprint from the JOURNAL OF THE AMERICAN CERAMIC SOCIETY, May 1953, xerox copy

Osborn, E. F., and R. C. DeVrles, K. G. Gee, and H. M. Kraner, "Optimum Composition of Blast Furnace Slag as Deduced from Liquidus Data for the Quaternary System CaO-MgO-Al, O3-SlO2", reprint from JOURNAL OF METALS, January 1954

Ricker, R. W. and E. F. Osborn, "Additional Phase Equilibrium Datee for the system CaO-MgO-SiO\_", reprint from the JOURNAL OF THE AMERICAN CERAMIC SOCIETY, 1954.



NOTE800K, continued:

United States Patent Office, patented August 31, 1954, (2,687,591) "Rifled Gun Barrel with Tapered Chromium Bore Wall", Vernon A. Lamb, Garrett Park, Md., and Elburatf. Osborn, assignors.

Roy, D. M., R. Roy and E. F. Osborn, "Fluoride Model Systems: IV, The Systems LIF-BeF - and PbF - BeF ", reprint from the JOURNAL OF THE AMERICAN CERÂMIC SOCIETY, July 1954.

Osborn, E. F., "Phase Equilibrium Studies of Steel Plant Refractories Sympeoms, presented at Pittsburgh Regional Technical Meetingoof American Iron and Steel Institute, October 15, 1954

DeVries, R. C., Rustum Roy and E. F. Osborn, "The System Tio -Sio", College of Mineral Industries, The Pennsylvania State University, 1954.

Roy, Rustum, E. F. Osborn, "The System Al\_O\_-SIO\_-H\_O", reprint from AMERICAN MINERALOGIST, 1954

DeVries, R. C., R. Roy, and E. F. Osborn, "Phase Equilibria in the System CaO-TiO\_-SiO\_", reprint from the JOURNAL OF THE AMERICAN CERAMIC SOCIETY, May 1955.

Osborn, E. F., "Importance of the Spinel Phase in the Steel Industry",

Osborn, E. F. and Arnulf Muan, "Phase Equilibria at Liquidus Tempaatures In the System MgO-FeO-Fe O -SIO ", reprint from the JOURNAL OF THE AMERICAN CERAMIC SOCIETY, 1956

presented at Chicago Regional Technical Meeting of American Iron and Steel Institute, October 17, 1956

"The Mineral Industrees Undergraduates Speak"

VOLUME 2.

Mineral Industries, The Pennsylvania State University, January 1954,

Mineral Industries, The Pennsylvania State University, February 1954 "Significant Changes During the Past 50 Years in Education in the Mineral Industries Fields", by E. F. Osborn.

Mineral Industries, The Pennsylvania State University, November 1956, "The Mineral Industries Need Young Men", by E. F. Osborn.

DeVries, R. C. and E. F. Osborn, "Phase Equilibria in High-Alumina Part of The System CaO-MgO-Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>", reprint from the JOURNAL OF THE AMERICAN CERAMIC SOCIETY, 1957



NOTEBOOKS, continued:

Sand, L. B., Rustum Roy, and E. F. Osborn, "Stability Relations of Some Minerals in the Na\_O-Al\_O\_-SIO\_-H\_O System", reprint from ECONOMIC GEOLOGY, March-April 1957

Flaschen, S. S., and E. F. Osborn, "Studies of the System Iron Oxide Silica-Water at Low Oxygen Partial Bressure"

Mineral Industries, The Pennsylvania State University, "Fossil Fuels, Future Energy Requirements", by E. F. Osborn, October 1957

Patent Specification, (819,777) Complete Specification relating to Refractory Brick. xerox copy.

Glasser R. P. and E. F. Osborn, ""Phase Equilibrium Studies in the System CaO-Cr O -SiO ", reprint from THE JOURNAL OF THE AMERICAN CERAMIC SOCIETY, September, 1958

Osborn, E. F., "Presentation of the Mineralogical Society of America Award to Rustum Roy", reprint from AMERICAN MINERALOGIST, 1958

Osborn, E. F. "Role of Oxygen Pressure in the Crystallization and Differentation of Basaltic Magma", AMERICAN JOURNAL OF SCIENCE, November 1959

Osborn, E. F., "Presentation of Arthur L. Dey Medal to **B**dward C. Bullard, PROCEEDINGS VOLUME OF THE GEOLOGICAL SOCIETY OF AMERICA Annual Report for 1959. October 1960

Glasser, F. P., and E. F. Osborn, "The Ternary System MgO-MnO-SIO.", reprint from the JOURNAL OF THE AMERICAN CERAMIC SOCIETY, March 1960

Osborn, E. F. and P. L. Roeder, "Effect of Oxygen Pressure on Crystallization In Simplified Basalt Systems", 1959

Ten diagrams of reproductions from "Phase Diagrams for Ceramists" by E. F. Osborn and A. Maan.

Osboon, E. F., "Addendum Note To 'Reaction Series for Subalkaline igneous Rocks Based on Different Owygen Pressure Conditions", reprint from AMERICAN MINERALOGIST, 1962

Osborn, E. F., "Reaction Series for Subalkaline Igneous Rocks Based on Different Oxygen Pressure Conditions", address of retiral gPPensadent of the Mineralogical Society of America at the 42nd Annual meeting of the Society at Cincinnati, Ohio on November 3, 1961. The original title was "Two Reaction Series".

Muan, Arnulf and E. F. Osborn, "Phase Equilibria as a Guide in Refractory Technology", reprint from THE AMERICAN CERAMIC SOCIETY BULLETIN, July 15, 1962.

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NOTEBOOKS, continued: Volume 2

Osborn, E. F., "Experimental Investigation of the Oxygen Pressure and Crystallization Phenomena of Basialts and Andesites", Ingernational Symposium on Volcanology, Abstracts, Science Council of Japan, 1962. xerox copy.

Fundli, R. F., "Oxygen Fugacities of Basaltic Magmas", special GSAA papers, NO. 68, abstracts for 1961

"Coal in Pennsylvania, recent developments and prospects", a report of the Panel of Technical Advisors on Coal Marketing to the Joint State Government Commission, General Assembly of the Commonwealth of Pennsylvania, 1963

United States Patent Office (3,082,105), "Chrome Silica Brick" Elburt F. Osborn, assignor, patented March 19, 1963

Osborn, E. F., "Some Experimental Investigations Bearing on the Origin of Igneous Magmas of the Earth's Crust", ESTUDIOS GEOLOGICOS, \$958

Sims, Clarence E., "Physical Chemistry of Steelmaking Committee, Iron and Steel Division, American Institute of Mining, Metallurgical, and Petroleum Engineers" reprint from ELECTRIC FURNACE STEELMAKING, Volume 11, theory and Fundamentals.

A bulletin printed in Russian language, (Printed in the Soviet Union) 1964

Hamilton, D. L., C. Wayne Burnham, and E. F. Osborn, "The Solubility of Water and Effects of Oxygen Fugacity and Water Content on Crystallization in Mafic Magmas", JOURNAL OF PETROLOGY, 1964

Osborn, Elburt F. "The Society's Role in Continuing Education", reprint from President's Page, THE AMERICAN CERAMIC SOCIETY BULLETIN, August 7. 1964.

Osborn, Elburt F., "The Society's Publications", reprint from the President's Page, THE AMERICAN CERAMIC SOCIETY BULLETIN, Aptober 7, 1964

Osborn, Elburt F., "Program for the Annual Meeting", reprint from President's Page, THE AMERICAN CERAMIC SOCIETY BULLETIN, Apeil 7, 1965

Osborn, Elburt F., "Present Developments and Future of Earth Science Research", proceedings: Graduate Earth Science Education Conference, 1965

Muan, Arnulf, and E. F. Osborn, "Phase Equilibria Among Oxides in Steelmaking", sponsored by AMERICAN IRON AND STEEL INSTITUTE. Addison-Wesley Publication Company, 1965



NOTEBOOKS: continued. Volume 2

United States Patent Office Certificate of Correction, Patent (3,202,522), "Julie Chi-Sun Yang et al", August 24, 1965

United States Patent Office, Patent (3,202,522) "Cementitious Product", Julie Chi-Sun Yang and Elburt F. Osborn, assignors. August 24, 1965

Roeder, P. L., and E. F. Osborn, "Experimental Data for the System MgO-FeO-Fe O3 - CaAl Si O9 - SIO And Their Petrologic implications", AMERICAN JOURNAL OF SCIENCE, June 1966.

Osborn, E. F. //''Comment on Note: "Hydrothermal Silica Transformations", reprint from JOURNAL OF THE AMERICAN CERAMIC SOCIETY, December 1966

Roeder, P. L., and E. F. Osborn, "Fractional Crystallization Trends In the System Mg SIO<sub>4</sub>-CaAl SI O<sub>8</sub>-FeO-Fe O-SIO Over the Range of Oxygen Partial Pressures of 10-n to 10-0-1 atm." reprint from BULLETIN VOLCANOLOGIQUE, TOME XXIX, 1966, by Francesco Glannini & Figli, Italy.

Osborn, E. F., "The Future of Ceramics and the American Ceramic Society", reprint from THE AMERICAN CERAMIC SOCIETY BULLETIN, October 7, 1967.

Speidel, and E. F. Osborn, "Element Distribution Among Coexisting Phases in the System MgO-FeO-Fe<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> As A Function of Temperature and Oxygen Fugacity", from THE AMERICAN MINERALOGIST, July-August, 1967.

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(Signed)

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Director

GMG/ees