

MC 27.2

## Engineering Papers

Written by both faculty and students from 1938-1981

### Collection

Acquisition: Boxes found in Scholes Library, Harder Hall.

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The New York State College of Ceramics at Alfred University, Scholes Library

## Series Descriptions:

Filed in the Vertical Files, B Cabinet.

Drawer B/A contains variety of papers written by faculty and students. The date ranges from 1938 through 1981, with many papers undated.

Drawer B/B and B/C contain reports prepared for different contracts, including the Air Force.

## Note

See also MC-35 Notebooks & Papers for class notes prepared by faculty and student papers.

### B/A.1

Gray, Thomas J. and Giess, Edward A. Certain aspects of diffusion and conduction in alkali halides. [1959]

Chung, Dae-Hyun, Crandall, W.B. and Gray, Thomas. Significance of grain boundary and impurity on mechanical properties of aluminum oxide. [5-1-62]

Crandall, W.B., Chung, D. H. and Gray, T.J. The mechanical properties of ultra fine hot-pressed alumina. [February 1960]

Gray, Thomas J. The design and development of an electron microbeam probe/mass spectrometer. Research proposal. New York State Science and Technology Foundation. [August 1966]

Gray, Thomas J. and Kowalczyk, Louis N. A Microbeam probe mass spectrometer applied to ceramic microstructure. [?]

McMurty, Carl, Gray, Thomas and Crandall, William. Mineral Beneficiation: the application of shaken haliciods in mineral beneficiation. Gulf Research Fellowship [1957-1958]

Gray, Thomas J. and Darby, P.W. Semi-conductivity and catalysis in the nickel oxide system. [February 1956]

Gray, Thomas J. Fuel Cell Research. An investigation of non-steady state operation. [?]

Gray, Thomas J. and Zope, J.K. Electron microbeam probe techniques for studying grain boundaries in polycrystalline ceramics. [?]

### B/A.2

Gray, Thomas J., Schneider, A.A., Rozelle, R. B. and Soeder, M.L. Application of galvanostatic studies to fuel cell electrodes. [?]

- Gray, Thomas J. and Pryor, M.J. Oxidation kinetics. [?]
- Gray, Thomas J. and Harrison, P.G. The kinetics of f-center formation in alkali halides as a function of precipitation at dislocations. [?]
- Gray, Thomas J. and Oswin, H.G. Isomerization. Cities Service Research Fellowship. [1-30-59]
- Gray, Thomas J. and Masse, N.G. Hydrogenation. Cities Service Research Fellowship. [9-30-58]
- Gray, Thomas J. and Masse, N.G. Hydrogenation. Cities Service Research Fellowship. [10-31-58]
- Gray, Thomas J. and Masse, N.G. Hydrogenation. Cities Service Research Fellowship. [11-28-58]
- Gray, Thomas J. and Masse, N.G. Hydrogenation. Cities Service Research Fellowship. [12-31-58]
- Gray, Thomas J. and Masse, N.G. Hydrogenation. Cities Service Research Fellowship. [1-30-59]
- Gray, Thomas J. and Oswin, H.G. Isomerization. Cities Service Research Fellowship [12-31-58]
- Gray, Thomas J. and Oswin, H.G. Isomerization. Cities Service Research Fellowship. [10-31-58]
- Gray, Thomas J. and Oswin, H.G. Isomerization. Cities Service Research Fellowship. [11-28-58]
- Gray, Thomas J. and Oswin, H.G. Isomerization. Cities Service Fellowship Report. [3-31-59]
- Gray, Thomas J., Rossington, David R. and Masse, Norman G. Catalysis in the Fischer-Tropsch synthesis. M.W. Kellogg-Cities Service Research Fellowship. Quarterly report. [3-31-58]
- Gray, Thomas J. Catalysis in the Fischer-Tropsch synthesis. Kellogg-Cities Research Fellowship. [Period of April 1, 1956 - June 30, 1956]
- Gray, Thomas J. and Schneider, A.A. An investigation of non-steady-state operation. Fuel Cell Research. [1-15-64]

### B/A.3

- Gray, Thomas J., Dell, R.M., Bailey, P.C. and Stull, J.L. The chemical-physics of ferrites. [Feb 1956]
- Schiltmeister, W., Pfaffinger, K. and Raine, T. Structure and strength effects in cvd titanium carbide and titanium nitride coatings. [1976]

Robertson, W.M. and Ekstrom, F.E. Impurity effects in surface diffusion on aluminum oxide. [?]

Crandall, William. High temperature automatic regulators adaptable to ceramics. [?]

#### B/A.4

Lane, Richard. The polishing of glass. American Optical Company Research Fellowship. [12-31-60]

Verduch, Antonio Garcia. Production of a lightweight material very rich in silica. [8-1-58]

West, Richard R., Coffin, Leon B. and Cross, Owen H. A fundamental concept for firing brick in a tunnel kiln. [9-13-56]

West, Richard and Coffin, Leon. Casting ware with highly dispersed clay bodies. [?]

Research Laboratory at Alfred University. A study of the effect of the addition of shale to Hudson river clay. [1949]

Smith, Carlyle and Crandall, W.B. Calculated high temperature elastic moduli for zero porosity monoclinic zirconia. Technical Report. [1-18-63]

McMahon, J.F., Kolstad, C.K. and Barnes, H.H. A critical study of the manufacture of soft-mud building brick. [July 1948]

#### B/A.5

Gray, Thomas J. Chemical-physics of catalyst surfaces. Presented at Symposium on Catalysis, American Chemical Society, Petroleum Division. [April 1959]

Goss, Bruce R. Properties of the spinal group. [?]

#### B/A.6

Greene, Charles H. "Multiple break sources in laths of sheet glass" [?]

Greene, Charles H. Glass. [Jan. 1961]

Chung, Dae Hyun. Elastic and anelastic properties of fine-grained polycrystalline alumina at elevated temperatures. Convair Research Fellowship. [Jan. - Dec. 1960]

#### B/A.7

Gray, Thomas J., Rossington, D.R. and Masse, N.G. Catalysis in the Fischer-Tropsch synthesis. Kellogg-Cities Research Fellowship [Aug. 1958]

## B/A.8

Gray, Thomas J. Catalysis in the Fischer-Tropsch synthesis. Kellogg-Cities Research Fellowship. [Oct. 1955 - Oct. 1957]

## B/A.9

Gray, Thomas J. Catalysis in the Fischer-Tropsch synthesis. Kellogg-Cities Research Fellowship. [Oct. 1953-Oct. 1955]

## B/A.10

Alfred University. An investigation into the Fischer-Tropsch process. M.W. Kellogg-Cities Research Fellowship. [Jan. - Mar. 1955]

Gray, T.J. The Fischer-Tropsch Process. M.W. Kellogg Cities Services Research Fellowship. Oct. 1953 – October 1954. (Administrative & Confidential parts)

Jennings, Thomas J., Rossington, David R., Masse, Norman G., and Gray, Thomas J. Catalysis in the Fischer-Tropsch synthesis. M.W. Kellogg-Cities Service Research Fellowship. Annual Report. [Oct. 1956 - Oct. 1957]

An investigation into the fundamental aspect of the Fischer-Tropsch process. M.W. Kellogg-Cities Service Research Fellowships. Quarterly Report. [Apr. - Jun. 1955]

Gray, Thomas J. Catalysis in the Fischer-Tropsch synthesis. Kellogg-Cities Research Fellowship. [Jan. - Mar. 1956]

Gray, Thomas J. Catalysis. Cities Service Research Fellowship. Annual Review of Research. [May 1958]

Gray, Thomas J. Catalysis. Cities Service Research Fellowship. Annual Review of Research. [July 1958]

Gray, Thomas J. Actes du deuxieme congres international de catalyse. [1960]

Gray, Thomas J. Interim report. Cities-Kellogg Fellowships for Research in Catalysis. [March 1954]

Gray, Thomas J. Interim report. Cities-Kellogg Fellowships for Research in Catalysis. [January 1954]

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [6-29-57]

## B/A.11

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [5-31-57]

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [9-30-57]

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [7-31-57]

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [10-31-57]

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [2-28-58]

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [1-31-58]

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [3-31-58]

Gray, Thomas J. and Masse, N.G. Hydrogenation. Cities Service Research Fellowship. [1-30-59]

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [5-30-58]

Gray, Thomas J. and Oswin, H.G. Isomerization catalysis platinum-ruthenium on alumina. Cities Service Research Fellowship. [4-20-59]

Gray, Thomas J. and Oswin, H.G. Catalysis. Cities Service Research Fellowship. [6-30-58]

Fundamental aspects of ferrites. Burroughs Adding Machine Company. Final Report [4-30-55]

Gray, Thomas J. Bibliography of ferrites. [Dec. 1956]

## B/A.12

Stelenium-tellurium Development Association. Status research report. [Jun. - Nov. 1966]

Stelenium-tellurium Development Association. Annual research report. [July 1965- June 1966]

Condrate, R.A., Sr. and Knee, F. The Raman Spectrum of Sodium Ditungstate,  $\text{Na}_2\text{W}_2\text{O}_7$  Based on M.S. Thesis submitted by F. Knee. [May 1977]

Brownell, Wayne E. The Causes and Control of Efflorescence on Brickwork. Structural Clay Products Institute. Report No. 15. [Aug. 1969]

- Condrate, R.A., Sr. and Bihuniak, P.P. Preparation History Effects in  $\text{TiO}_2\text{SiO}_2$  Glasses. Based on Ph.D. Thesis submitted by P. P. Bihuniak. [July 1980]
- Condrate, R.A., Sr., Smith, C.F., and Votava, W.E.. The DIR Spectra of Titanium-Containing Vitreous Silica. Based on Ph.D. thesis submitted by C.F. Smith. [Aug. 1973]
- Kowalczyk, L.N. and Condrate, R.A., Sr.. The Vibrational Spectra of Spodosite Analogs. Based on Ph.D. thesis submitted by L.M. Kowalczyk. [May 1972]
- Pasto, A.E. and Condrate, R.A., Sr.. The Laser Raman Spectra of Several Perovskite Zirconates.
- Pasto, A.E. and Condrate, R.A., Sr. The Raman Spectrum Of  $\text{PbZrO}_3$ . Based on a Ph.D. thesis submitted by A.E. Pasto. [April 1971]
- Levitt, S.R. and Condrate, R.A., Sr.. The Vibrational Spectra of Lead Apatites. Based on a Ph.D. Thesis submitted by S.R. Levitt. [1970]

### B/A.13

- Bihuniak, P.P. and Condrate, R.A., Sr. Structures and Related Properties of Group IVB – Doped Vitreous Silica. Based on a Ph.D. thesis submitted by P.P. Bihuniak. [1980]
- Stranford, G.T.; Cornilsen, B.C. and Condrate, R.A., Sr.. The Raman Spectrum of Alpha-Zinc Pyrophosphate. [1980]
- Garwood, G.A. and Condrate, R.A., Sr.. The IR Spectra of Dimethyl Sulfoxide Adsorbed on Several Cation-Substituted Montmorillonites, Based on Ph.D. thesis submitted by G.A. Garwood. [1975]
- Cornilsen, B.C. and Condrate, R.A., Sr.. The Vibrational Spectra of Alpha-Alkaline Earth Pyrophosphates. Based on a Ph.D. thesis submitted by B.C. Cornilsen. [1975]
- Cornilsen, B.C. and Condrate, R.A., Sr.. The Vibrational Spectra of Magnesium Pyrophosphate. Based on a Ph.D. thesis submitted by B.C. Cornilsen. [1975]
- Bhargava, R.N. and Condrate, R.A., Sr.. The Vibrational Spectra of  $\text{VPO}_5$  Crystal Phase and Related Glasses. Based on a M.S. thesis submitted by R.N. Bhargava. [1976]
- Condrate, R.A., Sr.; Dykes, E. and Cornilsen, B.C.. The Raman Spectrum of Calcium Bromapatite. [1975]
- Casciani, F. and Condrate, R.A., Sr.. The Vibrational Spectra of Brushite. [1979]

#### B/A.14

Reed, James S. The Red Hot Field of Ceramics.

Reed, J.S. and Jewart, C.N.. Prediction of Cation Distribution in Spinel Solid Solutions. [1972]

Reed, J.S and Fulrath, R.M.. Characterization and Sintering Behavior of Barium and Strontium Ferrites. [1972]

Reed, J.S and DiMilia, R.M.. Hot Forging of Vitrified Bonded Abrasives. [1978]

Reed, J.S and Holleran, L.M.. Sintered Permeable Ceramic Mold. Based on a M.S. thesis submitted by L.M. Holleran. [1969]

Reed, J.S and Roberts, Thomas. Evaluation of a Static Mixer for the Mixing of Particulate Ceramic Systems. Based on a B.S. thesis submitted by Thomas Roberts.

Reed, J.S Optical Adsorption Spectra of Cr +3 in MgO.Al<sub>2</sub>O<sub>3</sub> – MgO. 3.5 Al<sub>2</sub>O<sub>3</sub> Spinels.

Rossington, D.R. Notes on Gas-Solid Interactions. [1981]

Tinklpaugh, J.R. Ceramic-Metal Fiber Composites. [1965]

Gray, T.J.. An Intergrated Research Program in the Fabrication and Investigation of Improved Ceramic Materials. Unsolicited Report. [Feb 1966]

#### B/A.15

Greene, C.H.. The Use of Lead in Glass, report and bibliography. [1962]

Soxman, E.J. Literature Survey on Impact Strength of Materials. [1953]

Soxman, E.J., Tinklepaugh, J.R., and Curran, M.T. An Impact Test for Use with Cermets. [1955]

#### B/A.16

The following are a bound item

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Joseph, A.D. Ferroelectric Materials. [May 1954]

Soxman, E.J. Nitrides. Partial Graduate Credit. [May 1954]

Waugh, J.S. Borides.

Tao, Yung. Some Propeties of Metallic Sulfides. [May 1954]

Stull, John L.. The Hydrides.

Ayer, Donald R.. Ferromagnetic Materials.



Lewis, Robert T.. Silicides.

Goss, Bruce R.. Properties of the Spinel Group.

### B/A.17

Gray, Thomas J. and Harrison, P.G. A diffusion in alkali halides at low temperatures.

? Diffusion studies using radioactive isotopes. December 1954

Gray, Thomas J. Defect structures. October 1954. Presented at Basic Science Division, ACERS Fall Meeting.

Gray, Thomas J. and Darby, P.W. The relationship between adsorption kinetics and the defect solid state.

Kay, H. F. Study of fine scale structure of materials.

Kay, H. F. Electronic ceramics.

Kay, H. F. Modern physics.

### B/A.18

Schurecht, H.G. Soluble Salts. September 1938

Veit, David W. The Silk Screen Process as Used on Ceramic Wares. 1938

Burnham, Forrest. Terra Sigillata. 1943?

West, R. R. Garnet, Mining and Processing.

Tinklepaugh, J. R. Survey of Some High Melting Carbides.

### B/B.

**Contract No. AF18(600)1448, Project No. R355-20-18, File No. 20-18**

Gray, Thomas J., Project Director.

Diffusion processes in ionic solids.

Technical Status Report No. 1. April 1, 1955 – June 30, 1955.

Technical Status Report No. 2. July 1, 1955 - Sept. 30, 1955.

Technical Status Report No. 3. Oct. 1, 1955 - Dec. 31, 1955.

Technical Status Report No. 4. Jan. 1, 1956 - March 31, 1956.

Technical Status Report No. 5. April 1, 1956 - June 30, 1956.

Technical Status Report No. 6. July 1, 1956 - Sept. 30, 1956.

Technical Status Report No. 7. Oct. 1, 1956 - Dec. 31, 1956.  
Technical Status Report No. 8. Jan. 1, 1957 - March 31, 1957.  
Technical Status Report No. 9. April 1, 1957 - June 30, 1957.  
Technical Status Report No.10. July 1, 1957 - Sept. 30, 1957.  
Technical Status Report No.12. Jan. 1, 1958 - March 31, 1958.  
Technical Status Report No.13. July 1, 1958 - Sept. 30, 1958.  
Technical Status Report No.14. March 1959.  
Technical Status Report No.15. Sept. 1959.

Diffusion in ionic compounds. March 1957. B. D. James and E. A. Giess, Senior Research Fellows.

Ionic conductivity and diffusion in alkali halides. Sept. 1957. E. A. Giess, Senior Research Fellow.

Diffusion, conduction, and F-center formation in ionic solids. Final Report 31 Oct. 1960. Patrick G. Harrison and Richard W. Petticrew, Research Fellows.\*

### **Contract Nonr 1503(01), NR 015-215**

Gray, Thomas J., Project Director

Quarterly Report # 1. Dec. 31, 1954.  
Quarterly Status Report. June 1, 1956 - Sept. 1, 1956.  
Semiconducting materials.  
Status Report. Mar. 1955.  
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Quarterly Status Report. June – Aug. 1955.  
Quarterly Status Report. Dec. 1, 1955 – Mar. 1, 1956.  
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Annual Report. Dec. 1955 – Nov. 1956.  
Quarterly Status Report. Dec. 1, 1956 – Feb. 28, 1957.  
Quarterly Status Report. Mar. 1, 1957 – May 31, 1957.  
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Annual Summary Report 30 Nov. 1961 – 1 Dec. 1962.

Semiannual Report. Dec. 1961 - June 1962.

Technical Report. Sept. 1962.

Annual Report. 30 Nov. 1961 - 1 Dec. 1962

Final Report. Semiconducting and associated properties of progressively crystallized infrared transmitting glasses part 1.

Final Report. An investigation of the boron-phosphorous system part 2.

Final Report. An investigation of the dielectric properties of single-crystal versus polycrystalline materials part 3.

The chemical physics of ferrites. Dissertation of Thomas J. Gray and R. M. Dell; P. C. Bailey; J. L. Stull. Dec. 1956

Semiconductivity in cadmium telluride. Dissertation of John L. Stull. July 1958.

Photoconductivity in cadmium telluride. Dissertation of Clyde E. McNeilly. July 1958.

### **Contract Nonr-1503(02), NR 032-022**

Paladino, A.E., Swarts, E.L., Ging, J.L., and Crandall, W.B.

Technical Report. Measurements of thermal diffusivity and biot's modulus for dense alumina between 1500 and 1800 by an unsteady state method. April 15, 1956.

Final Report. Study of heat transfer of ceramic materials. January 1, 1955 - April 30, 1957.

### **Contract Nonr 34100, NR 018-606**

Final Report. Magnetic properties of ferrites. March 15, 1951 - January 31, 1954.

ONR Technical Reports. January, 1954

Magnetostriction and permeability of magnetite and related ferrites.

A linearly varying current source for an electromagnet.

Re-analysis of microwave resonance data for low-temperature magnetite.

### **Contract N6-ori-143, NR 032-022**

Final Report. Fundamental properties of metal-ceramic mixtures at high temperatures. June 1, 1946 - January 1, 1955.

Frechette, V.D. European travel in connection with the Colloquium on Reactions in the Solid State, Paris. November 30, 1948.

Frechette, V.D. and W.G. Lawrence. Introduction to reactions in the solid state. March 31, 1950.

### **Contract AF33(657)-7564**

Hydrogen – oxygen electrode study in hydrox fuel cells. Quarterly Technical Progress Report No. 1. 15 Mar. 1962

Hydrogen – oxygen electrode study in hydrox fuel cells. Quarterly Technical Progress Report No. 2. 15 June 1962.

Fuel Cell Bibliography June 15, 1962

Hydrogen – oxygen electrode study in hydrox fuel cells. Quarterly Technical Progress Report No. 3. 15 Sept. 1962.

Hydrogen – oxygen electrode study in hydrox fuel cells. Quarterly Technical Progress Report No. 4. 15 Dec. 1962.

Monthly Status Letters 1 – 12. Hydrogen – oxygen electrode study. Jan. – Dec. 1962.

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Hydrogen – oxygen electrode study. Quarterly Technical Progress Report No. 7. 15 Sept. 1963.

Hydrogen – oxygen electrode study. Quarterly Technical Progress Report No. 8. 15 Dec. 1963.

Monthly Status Letters 13 – 24. Hydrogen – oxygen electrode study. Jan. – Dec. 1963.

Hydrogen-Oxygen Electrode Study. Quarterly Technical Progress Report No. 9, 15 March 1964.

Study of hydrogen – oxygen fuel cell electrodes. Technical Documentary Report No. APL TDR 64 – 88.

**Contact No. AF33(616)-2007, Project No. 7350**

Charland, T.L.; Tinklepaugh, J.R.; Goss, B.R..

Quarterly Progress Report No. 2 The Carbonization and Graphitization Under Pressure of Carbon Bonded Silicon Carbide Graphite for Rocket Liners. [July 1, 1953 – Sept. 30, 1953]

Quarterly Progress Report No. 3. The Carbonization Under Pressure of Carbon Bonded Silicon Carbide Graphite for Use in Uncooled Rocket Nozzles. [Oct. 1, 1953 – Dec. 31, 1953]

Technical Report. The Pressure-Carbonization of Carbon Bonded Silicon Carbide-Graphite for use in Uncooled Rocket Nozzles. [1955]

**Contract No. Cac-47-16**

Final Report. A Critical Study of the Manufacture of Soft-Mud Building Brick [July 1948]

**Contract No. DA-30-069-ORD-3386**

Metal-ceramic Composites for Extreme Temperature and Stress Applications

Quarterly Report No.1. [July 1961-Sept.1961]

Quarterly Report No.2. [Oct.1961-Dec.1961]

Quarterly Report No. 3. [Jan. 1962- Mar. 1962]

Quarterly Report No. 4. [Apr. 1962- June 1962]

Final Report [July 1961-Sep. 1962]

**Grant No. DA-ORD-31-124-60-G58**

Rinoud Hanna and W.B. Crandall

First Progress Report for Period. "Elastic and Anelastic Properties of Cubic Crystals and Fine-Grained Dense Polycrystalline Compacts" [15 Aug. 1960 – 1 Apr. 1961]

First Year Report. The Young's Modulus and Internal Friction of Polycrystalline MgO at Room Temperature. [Sept. 1, 1960 – Sept. 1, 1961]

Summary Report to U.S. Army Research Office (Durham) on Conference  
"Ceramics for Structural Use" [September 18, 1961]

Second Report. Ultraviolet, Visible, and Infrared Transmission in Magnesia [Jan. 1962]

Third Report. Dissipation of Energy by the Grain Boundaries. [Apr. 1, 1962]

Fourth Report. Elastic Properties of Single Crystal Magnesia. [Nov. 1, 1962]

**Contract No. DA-31-124-ARO (D-23)**

Dae-Hyun Chung, Joseph J. Swica, and William B. Crandall

Fifth Report Isotropic Elastic Moduli of MgO at Theoretical Density Point [Jan 1963]

Progress Report no. 6. Elastic Properties of Polycrystalline Magnesium-Aluminate Spinel [June 1963]

Technical Report no. 7. Exponential temperature dependence of the elastic moduli of single-crystal and polycrystalline magnesium oxide [Sep. 1963]

Final Report Elastic properties of Magnesia and Magnesium-Aluminate Spinel [Feb. 1964]

**Contract No. DA-31-124-ARO (D-23) AROD Project No. 23**

D. H. Chung and W. G. Lawrence

Microstructural Considerations of Mechanical Phenomena in Ceramic Oxide.

Progress Report no. 1. [Oct. 1962- Mar. 1963]

Progress Report no. 2 [Apr. 1963 – Aug. 1963]

Progress Report no. 3 [Sept. 1963 – Nov. 1963]

**Contract No. NOW 64-0051-d**

J.E. Funk, J. Nemeth, and J.R. Tinklepaugh

The Stress-Strain Behavior of Strontium Zirconate.

Bimonthly Progress Report No.1. [Sept. 15-Nov. 15, 1963]

Bimonthly Progress Report No.2. [Nov. 15, 1963-Jan.15, 1964]

Bimonthly Progress Report No.3. [Jan. 15-March 15, 1964]

Bimonthly Progress Report No.4. [March 15-May 15, 1964]

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Final Technical Report. [Sept. 1963- Sept. 1964]

**Contract No. NOW 65-0131-d**

J.E. Funk, J. Nemeth, and J.R. Tinklepaugh

The Thermal-Mechanical Behavior of Strontium Zirconate.

Bimonthly Progress Report No.1. [Oct.1-Dec.1 1964]

Bimonthly Progress Report No.2. [Dec. 1, 1964- Feb. 1, 1965]

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Bimonthly Progress Report No.5 [June 1-Aug. 1, 1965]

Final Technical Report. [Oct.1964-Oct.1965]

**Contract No. NOW 66-0191-d**

J.E. Funk, J. Nemeth, and J.R. Tinklepaugh

The Mechanical Behavior of Strontium Zirconate.

Quarterly Progress Report No. 1 [Oct.15, 1965 - - Jan.15,1966]

Quarterly Progress Report No. 2 [Jan.15 – Apr.15,1966]

Quarterly Progress Report No. 3 [Apr.15 – Jul.15,1966]

Final Report. [Oct. 1965-Oct. 1966]

**Grant No. NsG-384**

T. J. Gray, A. A. Schneider, M.L. Soeder and R. B. Rozelle.

Fuel Cell Research, An Investigation of Non-Steady-State Operation

Semiannual Status Report No. 1 [June-December 1963]

Second Semiannual Report [August 1, 1964]

Third Semiannual Report [June 1, 1964 – December 31, 1964]

Final Report [June 1, 1963- June 1, 1965]

Final Report Part III. Study of Gold, Palladium, and Palladium-Gold Alloy Electrodes by Galvanostatic Techniques.

**Contract No. AF33(616) 2380 EO No.R-506-67C SR7Z**

Impact Testing of Cermets.

Progress Report No.1. [April 1-July 1, 1954]

Progress Report No.2. [July 1-October, 1954]

Progress Report No.3. [October 1, 1954-January 1, 1955]

**Contract No. AF33(616) 2414 E.O. No. R506-67 Project No.3066**

A.D. Joseph, R.P. Riegert, K.D. Scheffer, J.R. Tinklepaugh., and R. Francis.

WADC Technical Report 55-82. The Heat-Treatment, Reinforcement, and Cladding of Titanium CarbideCermets. [December 1954]

WADC Technical Report 55-489 Reinforcement and Cladding of Cermets. [December 1955]

The Heat Treatment and Reinforcement of Metal-tic Cermets.

Progress Report No.1. [Jan. 1-April 1, 1954]

Progress Report No.2. [April 1-July 1, 1954]

Progress Report No.3. [July 10-Oct. 10, 1954]

The Reinforcement and Cladding of Cermets and Alloys.

Progress Report No.4. [Jan.1-March 31, 1955]

Progress Report No.5. [April 1-June 30, 1955]

Progress Report No.6. [July 1-Sept. 30, 1955]

Progress Report No.8. Cladding of Cermets and Macro-Cermets. [April 1-June 30, 1956]

**Contact No. W33 (038) ac-14233 RDO No. 506-67**

E.J. Soxman, R.E. Wilson



Report No. 45 Automatic Recording Balance for the Study of High Temperature Oxidation of Materials. [November 1950]

Report No. 46 Temperature in Uncooled Ceramic Lined Rocket Walls and Further Evaluation of Rocket Lined Materials. [December 1950]

Report No. 49 An Investigation of a Method of Casting Cermets Which Have Been Dispersed by Mechanical Means. [August 1951]

Report No. 50 Oxidation Studies of Iron and Chromium Bonded Titanium Carbide. [August 1951]

Technical Report 6549. Oxidation Studies of Iron and Chromium Bonded Titanium Boride. [August 1951]

WADC Technical Report 53-370. An Investigation of a Method of Casting Alloy-Titanium Carbide Cermets. [December 1953]

WADC Technical Report 53-369. Iron Bonded Titanium Carbide. [December 1953]

Contract No. J0199130 United States Department of the Interior, Bureau of Mines.  
David R. Rossington

Possible uses of manganese dioxide in ceramic applications: Literature review and analysis. [January 1980]

**Contract No. AT(30-1)-1297**

V. D. Frechette and Yung Tao

.Graphitization of Carbon. Technical

Progress Report

NYO-3757 [June 30, 1952, issued January 28, 1953]

NYO-3758 [September 30, 1952, issued January 29, 1953]

NYO-3759 [December 31, 1952, issued January 30, 1953]

NYO-3761 [March 31, 1953, issued April 24, 1953]

NYO-3762 [June 30, 1953, issued August 30, 1953]

NYO-3763 [September 30, 1953, issued October 1, 1953]

NYO-3764 [December 31, 1953, issued January 20, 1954]

Annual Progress Report.

NYO-3765 [December 31, 1953, issued January 25, 1954]

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