



MC 20

**Dr. Van Derck Frechette**

Faculty

**Collection:**

Acquisition: McMahon Bldg. Room 318, Spring 1986

Processed: Elizabeth Gulacsy, 1986, 2007

Updated: Laura Habecker, 2020

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

## Van Derck Frechette

(1916-2001)

Born: January 5, 1916, Ottawa, Ontario, Canada

Died: March 21, 2001, Alfred, New York

Married: Sarah (Sally) Houghton, April 4, 1940

Children: Kate (Bill) Forshee; Jude Frechette, Derck (Janis) Frechette, William (Ginny) Frechette, Chris (Wyn) Frechette

Parents: Howells and Lena Derck Frechette

### Education:

1929-1934 Nepean High School, Westboro, Ontario, CN

1934-1936 Victoria College, University of Toronto. Honour Mathematics and Physics

1936-1939 BS in Ceramic Engineering, Alfred University. Thesis: *Study of the recrystallization of MgO*

1938-1940 MS in Ceramic Engineering, University of Illinois

1942 Ph.D. in Ceramic Engineering, University of Illinois. Thesis: *An investigation of the reactions of simple magnesia spinels with alkalin earth orthosilicates in the solid state*

### Work/Teaching:

1935 Geological Survey of Canada, Field Survey in the Thunder Bay District (summer)

1936 M. J. O'Brien, Ltd. Prospecting gold near White River, Ontario (summer)

1937 Canadian Refractories Ltd. (summer)

1938-1941 Engineering Experiment Station Fellowship, University of Illinois. Research Assistant

1941-1942 New York State College of Ceramics at AU. Instructor

1942-1944 Corning Glass Works. Research physicist

1944-1987 New York State College of Ceramics at Alfred University (Emeritus 1987)

1955-1956 Institute for Physical Chemistry, University of Goettingen, Germany. Guest Professor

1956 Pratt and Whitney Division of United Aircraft, Hartford, CT. Summer Research

1957 Oak Ridge National Laboratory, Oak Ridge, TN. Summer Research

1960-1965 Lawrence Radiation laboratory, Livermore, CA. Summer Research

1965-1966 Max Planck Institut for Silicate Research, Wuerzburg, Germany. Guest Professor

1973 Institute for Materials Science, University of Erlangen-Nurnberg, Germany. Guest Professor

Honors/Societies:

1954 American Ceramic Society, Fellow  
Gordon Research Conference Award

1955 Fulbright Senior Research Award

1963 Swedish Royal Academy of Arts and Sciences, Honorary Member

1968 American Society for Engineering Education, Western Electric Fund Award

1983 American Ceramic Society, Outstanding Education Award

1985 Alfred University, Order of Merit

1991 Alfred University, Doctor of Science, honoris causa  
American Ceramic Society, Bleininger Award

Dates unknown Academy of Ceramics  
American Society for X-Ray and Electron Diffraction  
ASTM Committee on Fracture Mechanics  
ASTM Committee on Glass  
British Ceramic Society  
Canadian Ceramic Society  
Ceramic Educational Council  
Delta Sigma Phi  
Deutsche Keramische Gesellschaft  
Eta Mu Alpha  
Keramos (honorary ceramic engineering fraternity)  
Mineralogical Society of America  
National Institute of Ceramic Engineers  
New York Academy of Sciences Phi Kappa Phi  
Phi Kappa Epsilon  
Phi Kappa Phi  
Sigma Xi (honorary scientific research)

Publications: *(Books) in chronological order*

and Insley, Herbert. *Microscopy of Ceramics and Cements, Including Glasses, Slags, and Foundry Sands*. New York: Academic Press, 1955 (2<sup>nd</sup> printing, 1962).

*Non-Crystalline Solids*. New York: Wiley, 1960. Conference on Non-crystalline solids, 1958, Alfred University

and Gray, Thomas James. *Kinetics of reactions in Ionic Systems [Proceedings]*. New York: Plenum Press, 1969. International Symposium on Special Topics in Ceramics, 1967, Alfred University.

and LaCourse, William C., Burdick, Vernon L. *Surfaces and Interfaces of Glass and Ceramics [Proceedings]*. New York: Plenum Press, 1974. International Symposium on Special Topics in Ceramics, 1973, Alfred University.

and Pye, L. David, Reed, James S. *Ceramic Engineering and Science: Emerging Priorities*. New York: Plenum Press, 1974. Conference on Emerging Priorities in Ceramic Engineering and Science, 1974, Alfred University.

*Crystallography: A Primer*. Alfred, NY: New York State College of Ceramics at AU, 1977. (2<sup>nd</sup> edition published in 1982)

and Pye, L. David, Kreidl, N. J. *Borate Glasses: Structure, Properties, Applications*. New York: Plenum Press, 1978. Conference on Boron in Glass and Glass Ceramics, 1977, Alfred University.

and Setari, Stephen. *Alfred Community Resource Manual*. Alfred, NY: Office of Governmental Grants and Projects, Alfred University, 1979.

and Pye, L. David, Rase, Daniel E. *Quality Assurance in Ceramic Industries [Proceedings]*. New York: Plenum Press, 1979. Conference on Quality Assurance in Ceramic Industries, 1978, Alfred University.

and Pye, L. David., O'Keefe, John A. *Natural Glasses [Proceedings]*. Amsterdam: North-Holland Physics, 1984. International Conference on Glass in Planetary and Geological Phenomena, 1983, Alfred University

and Varner, James R. *Fractography of Glasses and Ceramics [Proceedings]*. Westerville, OH: American Ceramic Society, 1988. Conference on the Fractography of Glasses and Ceramics, 1986, Alfred University

*Failure Analysis of Brittle Materials*. Westerville, OH: American Ceramic Society, 1990. Translated into Japanese:

*Zeisei zairyo hamen kaiseki maniaru.* Tokyo: Shingijutsu Kaihatsu Senta, 1997.

and Varner, James R. *Fractography of Glasses and Ceramics II [Proceedings]*. Westerville, OH: American Ceramic Society, 1991. Conference on the Fractography of Glasses and Ceramics, 1990, Alfred University

and Varner, James R, Quinn, G. D. *Fractography of Glasses and Ceramics III [Proceedings]*. Westerville, OH: American Ceramic Society, 1996. Conference on the Fractography of Glasses and Ceramics, 1995, Alfred University

## Series Descriptions

### Box 1

Personal notebooks with addresses and notes. Correspondence from 1946 through 1972. Lecture notes, publications (reprints and original typescripts (1946-1973)).

Student papers, including exam reports from different classes.

### Box 2

Reel to reel tapes of lectures presented at the New York State College of Ceramics, including symposia, College events. 1950s. Not all tapes are identified.

## Collection

### Box 1

Personal Data (including 1942 Commencement Program). Obituary.

The Van Derck Frechette Professor of Ceramic Science Endowed Chair.

Dr. Alastair Cormack. Inaugural Lecture (1999): *Ceramic Science Through the Computer: An Atom's Eye View*. Program.

Correspondence 1946-1951

Correspondence 1952-1959

Correspondence 1960-1969

Correspondence 1970-1972

List of outgoing correspondence 1960-1965

Lectures: Borelius, Guinier, Kreidl, Buerger, Hedvall, Eitel, Bragg, Kerr:

Publications in chronological order.

"Silicates." Undated. Prepared for the Encyclopaedic Dictionary of Physics, Pergamon Press.

and Hedvall, J. A. "Cermets, the new ceramics." Pulverteknik, No. 15 (no date).

and Sephton, H. I. "A method of particle size determination by means of the microscope." Technical Paper No. 37, 1949.

and Crandall, W. B., Burzycki, M. "Improved Roberts Control for laboratory furnaces." Technical Paper No. 40, 1950.

and Bassett, L. B. "Microsampling of ceramic materials." Technical Paper No. 50, 1950.

and Tao, Yung. "Graphitization of carbon." Annual Progress Report. NYO-3760 Unclassified. Contract No. AT(30-1)1297. December 31, 1952.

and Tao, Yung. "Graphitization of carbon." Technical Progress Report. NYO-3762 Unclassified. Contract No. AT(30-1)1297. June 30, 1953.

and Tao, Yung. "Graphitization of carbon." Technical Progress Report. NYO-3764 Unclassified. Contract No. AT(30-1)1297. December 31, 1953.

"Microscopy and molding sands." AFS Transactions, 63 (1955).

"Solid State Reactivity in Relation to Progress in Refractories Technology." Tercera Reunion Internacional sobre Reactividad de los Solidos, 1956.

"Measurement and control of particle size." Summer Course, 1960.

"Progress on the 2070 C BeO transformation." Memo to Dr. J. S. Kahn, 1961.

Notes prepared and distributed by A. J. Rothman, 1960

and Cline, Carl F. "The cleavages of BeO and other minerals having the wurtzite structure." Technical Paper No. 124, 1963.

"Nuclear Reaction Ceramics for Nuclear Applications." Lecture prepared for CE 102, April 28, 1964.

"Scholarship and the University." Honors Convocation, Alfred University, 1964.

"Die Ausbildung von Keramik-Studentin in the USA." Ber.Dtsch.Keram.Ges. 45 (1966)

"Characteristics of fracture-exposed surfaces." Technical Paper No. 133. No. 5, Feb. 1966.

"Model construction as an aid to teaching symmetry." Journal of Engineering Education, 56 (9) 347-349 (May 1966).

and Oel, H. J. "Stress distribution in multiphase systems: 1, composites with planar interfaces." Technical Paper No. 140. 1967.

and Cline, Carl. "Laser damage in transparent glasses and crystals." Interaction of Radiation with Solids, Plenum Press, 1967.

and Cline, Carl. "Stimulation of thermoluminescence in LiF by ruby laser light." Applied Physics Letters, 10 (2) 39-40 (Jan.1967).

"Report of the Solid State Conference in Cairo." Deutsche Keramische Gesellschaft, 44 (2) 77-78 (1967).

and Harris, J. D. "Basic refractory attack in copper converters." Journal of the Canadian Ceramic Society, Vol. 38, 1969.

and Cline, C. F. "Fractography of ballistically tested ceramics." American Ceramic Society Bulletin, 49 (11), 1970.

"Fractology of glass." Tutorial Symposium, June 8-19, 1970.

and Varner, James R. "Mechanisms of slow crack propagation in glass" in *Amorphous Materials: Papers Presented to the 3rd International Conference on the Physics of Non-crystalline Solids*. London: Wiley Interscience, 1972

and Quackenbush, C. L. "Slow fracture of glass in alkanes and other liquids." International Symposium on Special Topics in Ceramics, 1973

"Initiation and propagation of fracture in ceramics." Plenary Lecture, 3<sup>rd</sup> International Congress on Fracture, 1973.

Student Papers, Undated.

Treffner, Walter S. "Petrographic Studies of Basic Oxygen Furnace Slags and Used Refractories."

Bjorck, Gordon L. "Suggestions for Enameling Rhenium Electrodes for Service at 2000 C in an Oxidizing Atmosphere."

Clare, S. D. "Electrical Conductivity and Semi-Conductors."

Copley, David. "Ithaca Magnetic Survey."

Newton, William. "Petrography of Slogs."

Seigal, Pamela K. "The Development of the Hot State Attachment to the Microscope." - Petrography 302

Student Papers, 1963-1966

Neuman, Bruce H. "Effect of Microstructure on the Mechanical Properties of Materials." (1963, C.E. 423)

Gilluly, Daniel A. "Recent Developments in Microscopic Analysis of Materials." (1963, Petrography 302)

Sumer, Guner. "A Literature Review of the Microscopic Examination of Hydrated Portland Cement." (1966, Petrography 401G)

Sites, Royal H. "Glass Defects, Their Determination and Causes." (1966)

Ringler, Edward. "Origins of Color in Glass: A Practical View." (1966)

Pasto, Arvid. "Enamel Coatings to Decrease Oxidation of Metals at High Temperatures" (1966, Ceramic Engineering 418: Enamels)

Moffit, Richard. "Gas Evolution During the Firing of Porcelain Enamels to Iron." (1966)

Lent, Susan B. "Zirconium Oxide in Enamels." (1966)

Hargrave, Robert M. "One Coat Enamels." (1966)

Harris, Donald. "The Use of the Petrographic Microscope in the Examination of Refractions." (1966)

Bugala, John J. "Specialized Uses of the Petrographic Microscope." (1966)

Aguirre, Carlos. "Weathering Action." (1966, Ceramic Engineering 418)

Tollerup, Winston R. "Final Examination." (1966, Ceramic Engineering 418: Enamels)

Ringler, Edward. "The Boston Stove Company." (1966)

Lazares, Carlos A. "Factors Which Contribute To or Detract From the Acid Resistance of Enamels." (1966, Ceramic Engineering 418: Enamels)

Hargrave, Robert M. "Enameling Magnesium." (1966, Ceramic Engineering 418: Enamels)



Aguirre, Carlos. "Acid Resistance of Enamels." (1966, Ceramic Engineering 418: Enamels)

Student Papers, 1967-1968

Bjorck, Gordon. "High-Temperature Enamels." (1967)

Pasto, Arvid Eric. "Phase Transformations: General Theory and Means of Study." (1967, C.E. 424 Advanced Ceramic Technology)

Galusha, Richard E. "Crystalline Coatings." (1967, C.E. 418)

Galusha, Richard E. "Final Exam." (1967, C.E. 418)

Wright, Parke H. Jr. "The Properties and Fabrication of Oxide Fuels." (1968)

Quackenbush, Carr Lane. "The Basic Principles of Breeder Reactors." (1968, C.E. 424 Advanced Ceramic Technology)

Moyles, Mark M. "Non-Oxide Ceramic Nuclear Fuels." (1968, C.E. 424 Advanced Ceramic Technology)

Smith, Peter C. "Plasma Sprayed Ceramic Coatings." (1968)

Menendez, Fernando. "A Microscopic Study of Portland Cements." (1968)

Kooy, Nellie Vander. "Recent Developments in P.E. Microscopy Techniques." (1968)

Sanders, David. "The Petrographic Study of Basic Refractories." (1968)

Rodriguez, F. J. "Advances in Study of Glass." (1968)

Langer, William H. (1968, Petrography 302)

Drosendahl, Glenn A. "Slags." (1968)

Crick, Roger "Porcelain Enamel Microscopy." (1968, Petrography 302)

Baty, Douglas W. "Microscopy of Glasses." (1968)

Cole, Thomas A. "Microscopic Examination of Glass." (1968)

Student Papers, 1969-1970

Nitchman, Peter P. "Special Project." (1969, Advanced Petrography)

Quackenbush, Carr Lane. "Cerment: Microstructure, Properties and Optical Microscopic Analysis." (1969)

Cronin, David. "Identification of Cords." (1969)

Miranda, Fernando. "Petrography." (1969)

Nastasi, Rosalia. "Microscopic Examination of Whiteware Bodies and Glazes." (1969)

Boysen, Stuart. "Holography and Some of Its Applications" (1969, Advanced Ceramic Technology)

Powell, Bob R. Jr. "Microscopy of Cements." (1969)

Wright, Jeffrey F. "Microscopy of Carbon Refractories." (1969)

Mandaville, David W. "Glass Stones." (1969)

Wells, Robert E. "Microscopic Techniques for the Study of Refractories." (1969)

Harris, R. K. "Fracture Mechanism in Glass Subjected to High Impact." (1969)  
Snowden, William E. "Developments in Refractories." (1969, C.E.)  
McCarroll, Edwin P. "Microscopy in Refractories." (1970)  
Laubenstein, Dick. "The Use of the Microscope in Determining Carbon Refractory." (1970)  
Prideaux, Peter H. "Yttrium Iron Garnet Growth." (1970)

PHOTOGRAPHS (mainly negatives)

1.a.b.c.d. Enamel defects. Bathtubs: Vermilpa-Brown Co. at Rockefeller Medical Center, New York. Oct. 24, 1947. 8 negatives. (16)  
2.a. Enamel defects. Bathtubs: Vermilpa-Brown Co. at Rockefeller Medical Center, New York. Oct. 24, 1947. 2 negatives. (16)  
2.b. "picture that sold a lot of dresses..." (34)  
2.c.d. Untitled. (58-62)  
3.a. X-Ray Unit at Ceramics College, Alfred (1)  
3.b.c.d. Microscope Furnace, May 1948. (14A,14B,14C)  
4.a. Souvenir Vase. New York State Ceramic Association at Alfred, Oct. 17, 1947 (68)  
4.b. Robert Campbell lecturing. February 1949. (69)  
4.c. Dr. M.J. Rice. (70)  
4.d. Marion Voss and Leon Bassett. (71)  
5.a.b.c. Untitled. (72,73,74)  
5.d. St. Pat's (?). (75,76)  
6.a. Ceramic Building. Binns Hall. (77) 1949. (79)  
6.b. Merrill Hall. 1939. (78)  
6.c.d. New York State Clay and Shale Survey Chart. (81-84)  
7.a. Bricks. Pictures taken for Research Station Oct.18,1947.(85)  
7.b. New York State Ceramic Association Meeting, Alfred. Oct. 17, 1947. McMahon, Scholes, Lapp, Blasdell. 2 negatives.(86)  
7. c. Robert Campbell, James Austin, Clarence Merritt. (87)  
7. d. Rita and Roberta Farnum. (88)  
8.a.b. Untitled. (89,90)  
8.c. Mrs. Ross Purdy and Donald Dickens. (91)  
8.d. Dean J.F. McMahon. 3 negatives. (92)  
9.a. Canadian Ceramic Society, Niagara Falls, Canada. Feb. 9, 1948. University Staff. (93) Canadian Officers and Speaker.(94)  
9.b.c.d. Upstate New York Section, A.C.S., Rochester June 4, 1948. (95-100)

- 10.a. Upstate New York A.C.S. Meeting, Hotel Sherwood Oct. 1948. James Austin, Chairman of Upstate Section, Dr. Silverman of Pittsburgh, George Kirkendal, Local Chairman. (101)
- 10.b. Picture of Dean Holmes in glass, made by Corning Glass Works and presented to school by Dr. Shauer of Corning, at the Oct. 1948 meeting of Ceramic Assoc. of New York State. (102)
- 10.c. Dean Major Holmes. 2 negatives. (103)
- 10.d. Whittemore, President of ACS in 1948, Campbell, McMahon. His visit to Alfred. (104)
- 11.a. Fred Palmer in press box, Aug. 1948. (105)
- 11.b.c.d. Untitled. ((109-111)
- 12.a. New York State College of Ceramics, Classroom and Laboratory Building. (113)
- 12.b. A.K.VanTine, Speaker Upstate A.C.S. Meeting, Buffalo, Dec. 5. (114)
- 12.c. Officers at Corning, Upstate New York Section of A.C.S., April 2, 1948. (115)
- 12.d. John Steinbeck, April 10, 1949. (116)
- 13.a. Preparation of Ceramic School exhibit before being sent to Albany. Washburn, Rhodes, Ekdahl. 3 negatives. (117)
- 13.b. Picture of Koenig of Ohio State and A.C.S. student branch officers. March 19, 1949. 2 negatives. (118)
- 13.c. Dr. Glen Lukens of U. of S. California, Binns Medal recipient at A.C.S. Annual Convention, April 1949.
- 13.d. Passport pictures, V.D. Frechette. Aug. 24, 1948. (120)
- 14.a. Mrs. Dyke at Lambda Chi. 3 negatives. (121)
- 14.b.c. Wobblator. Rotating wedge for Prof. Bassett. April 17, 1949. Slides made for ceramic convention. 4 negatives (123)
- 14.d. Furnace and balance used by A. Johnson, 1947-1948, for thesis. Slide made for Simpson, April 14, 1948. (124)
- 15.a. Untitled. (125)
- 15.b. Delta Sig. 2 negatives. (126)
- 15.c. Collegiate Staff, October 1947. (128)
- 15.d. Slides of Charts for Bassett, April 22, 1949. (147-149)
- 16.a.b.c. Brownell, slides. (150-155)
- 16.d. Committee from Research Station Planning, October Meeting (1948) of Ceramic Association: Amberg, Washburn, Burdick, Dickens, Negoro, Farnum, Brownell. (194)
- 17.a. Mr. & Mrs. Paul Orvis. 2 negatives. (195)

17.b. Organizational charts of Ceramic College for Dean McMahon's talk, April May 1949. "Evolution of the Engineering and Technology Departments"  
"Evolution of the Industrial Ceramic Design Department"

17.c. "Evolution of the Research Department" "Staff of the New York State College of Ceramics"

17.d. "Experiment Station Staff" "Faculty Members of the New York State College of Ceramics"

18.a. "Board of Managers New York State College" "Board of Regents of the University of the State of New York"

18.b. "Degrees" "Bachelor Degrees"

18.c. "Out of State Tuition" "Moneys Received for Research Grants" (196-209)

18.d. Early views of Ceramic College. 2 negatives.

19.a.b.c.d. Early views of Ceramic College. 8 negatives.

20.a.b. Early views of Ceramic College. 3 negatives. (210-214)

20.c. Pictures of early Ceramic College Staff. April 1949. Norwood (215)  
Clarence W. Merritt. (216)

20.d. Murray J. Rice (217) John Francis McMahon and Anna Abigail Merrill (218)

21.a. Everett E. Lund, John F. McMahon, C.W. Merritt, Kasper O.  
Myrvagnes(219) Samuel R. Scholes (220)

21.b. Elsie Binns (221) ? (222)

21.c. Charles M. Harder (223) Myrtle Meritt (224)

21.d. Roger M. Campbell (226) Theodore Ahern and Robert Campbell (227)

22.a. Royal Order of Flies (230)

23.b.c.d. Charts for Dean McMahon for 1948 April Ceramic Convention. "New York State Clay and Shale Survey. (231-235)

24.a.b.c.d. Untitled. (236-239)

25.a.b.c.d. Untitled. (240-243)

26.a.b.c.d. Untitled. (244-247)

27.a.b.c.d. Untitled. (248-251)

28.a.b.c.d. Untitled. (252-255)

29.a.b.c.d. Untitled. (256-259)

30.a. Thesis pictures from Joyce Killian's thesis, made for Simpson, Sept.12, 1949. 2 negatives (260)

30.b. McMahon, Kirkendale, Van Frechette, Howells Frechette. (261)

30.c. Board of Managers of Ceramic College. Sept. or Oct. 1949. (262)

30.d. Board of Managers of Ceramic College and College Staff. (263)

31.a.b.c. Untitled (264-266)

31.d. Clay and Shale Survey, Flow Sheet of Testing Procedure. (267)

32.a. Upstate ACS meeting, Hotel Sherwood, Oct.14, 1949. Left to right: Scholes, Frechette, Shauer, Day, Simpson, Frechette. (268)  
32.b.c.d. Untitled. (269,270,271)  
33.a. Untitled (272)  
33.b. Untitled (3 negatives) (273)  
33.c. Publicity pictures for Jenny Smith of Mr. Crumb, Craft School. May 1948. (274)  
33.d. Untitled (287)  
34.a.b.c. Untitled (288,289,290)  
34.d. Untitled (291-293)  
35.a. Norbert J. Kreidl. (300)  
35.b.c.d. Untitled (301,302,305)  
36.a.b.c.d. Untitled (313,314,315,316)  
37.a. Untitled (317)  
37.b. Binns Hall and Merrill Hall, May 1950 (318)  
37.c. Binns Hall 1901 (319)  
37.d. Untitled (320)  
38.a.b. Untitled (321-324)  
38.c. Citizenship Award presented to Dwight Brown, May 10, 1950. (325)  
38.d. Daniel Rase. High temperature quenching furnace (326)  
39.a. Untitled (327)  
39.b.c.d. Trumpeter Van Wiggeram Thesis pictures (328-330)  
40.a.b.c.d. Simpson. (333-340)  
41.a.b. Untitled (332,341)  
41.c.d. Untitled (342-345)  
42.a. Untitled (346,347)  
42.b.c.d. Blueprints of proposed building. 6 negatives. (349)  
43.a. Blueprint of proposed building. 2 negatives. (349)  
43.b. Charts on Density of SiO<sub>2</sub> and GeO<sub>2</sub> series (350,351)  
43.c. Charts on Refractive Index of SiO<sub>2</sub> and GeO<sub>2</sub> series (352,353)  
43.d. Charts on Softening Point of SiO<sub>2</sub> and GeO<sub>2</sub> series (354,355)  
44.a. Charts on Thermal Expansion of SiO<sub>2</sub> and GeO<sub>2</sub> series (356,357)  
44.b. Charts on Annealing Point of SiO<sub>2</sub> and GeO<sub>2</sub> series (358)  
44.c.d. Untitled (390,391)  
45.a.b.c.d. Untitled (392-395)  
46.a.b.c. Untitled (386-388)  
46.d. Brownell Slides. Chart. (396-400)

47.a. Fig 1.  
47.b. Table II. "Kind and quantity of soluble salts extracted"  
47.c. Table III. "Types of sulfur and sodium compounds in the shale"  
47.d. Table IV. "Efflorescence tendencies of shale specimens"  
48.a.b.c.d. Untitled (401,411,412,413)  
49.a.b.c.d. Merritt Thesis (361-385)  
50.a.b.c.d. Merritt Thesis continued  
51.a.b.c.d. Merritt Thesis continued  
52.a. Diff. Thermal Analysis Research Department 4/7/51 (414)  
52.b. Untitled (415)  
52.c. Williams Thesis Feb. 1951 (416-417)  
52.d. Isotope Lab. April 1951 (418)  
53.a.b.c.d. Ceramic products  
54.a.b.c.d. Ceramic products  
55.a.b.c.d. Ceramic products  
56.a.b.c.d. Ceramic products  
57.a.b.c.d. Ceramic products  
58.a.b.c.d. Ceramic products  
59.a.b.c.d. Ceramic products  
60.a.b. Untitled  
60.c. Untitled (46)  
60.d. Warpage frequency distribution 3/16" plain tile (52)  
61.a.b.c.d. Warpage frequency charts (53-56)  
62.a. Slopes of warpage curves (57)  
63.a.b.c.d. Microscope slides Student Papers, 1969-1970  
11 Unidentified tape reels.

### Box 2A tapes

SYMPOSIUM ON CERAMIC EDUCATION. Sponsored by the New York State College of Ceramics, June 12, 1950.

Reel 1. Moderator: Robert Campbell, Head of Ceramic Engineering Dept.  
Speaker: Dr. R.K. Hirsch, University of Illinois.

Reel 2. Speaker: Prof. Charles Harder, Head of Department of Ceramic Design.  
Topic: Ceramic Art and Design.

Dr. Paul Kerr, Research Coordinator, Dept. of Geology, Columbia University.

Reel 1. Geology and Clay Mineral Resources. Feb. 27, 1951.

Reel 2. The Modern Role of Clay Minerals. Feb. 27, 1951. 2 copies.

Prof. G. Borelius, Royal Institute of Technology, Stockholm, Sweden. Experiments on Transformations in Selenium. Lecture. March 5, 1951. 2 Reels.

Calorimetric Investigation of Transformations in Solids. Seminar. March 5, 1951. 2 Reels.

Dr. R. H. Boque, Director Portland Cement Association Fellowship, National Bureau of Standards.

Research in Portland Cement. Lecture. April 3, 1951. 2 Reels.

Minerals of Portland Cement. Seminar. April 4, 1951. 2 Reels.

### Box 2B tapes

Dr. Jost. Evening talk. October 7, 1952. 3 Reels.

Enamel Adherence Conference. Sept. 24. Prof. J. Benard, University of Paris. Reel 3.

Cornerstone Laying Ceremony. New York State College of Ceramics.

Dr. Samuel R. Scholes, Associate Dean. Introduction to the glass blowing exhibition at the New York State College of Ceramics. St. Pat's annual open house. March 15, 1950. 1 Reel.

Crystal Chemistry Symposium. May 24 and 25, 1951. 10 Reels.

Reel 1. Introduction by McMahon.

Reels 1, 2 and 3. Dr. Ordway. Cements and Crystal Chemistry. Question period.

Reel 3. Introduction for D.P. Johnson by McMahon. Lecture by Johnson.

Reels 8 and 9. Dr. Paul Smith. Mechanical Properties and Recrystallization of non-metallic crystals.

Reels 9, 10 and 11. Dr. W. Merz. Ferro Electric Crystals.

Reels 12, 13 and 14. Dr. Sanford Cole. Precipitation of  $\text{TiO}_2$  from Glass.

Bickford. Ferrites. 1 Reel.

Barrer. 3 Reels.

Heuss. The script. 3 Reels.

Tower. 1 Reel.

2 Unidentified reels