
**ANNUAL MEETING PLACES**

1920 Chicago, Illinois  
1921 Amherst, Massachusetts  
1922 Ann Arbor, Michigan  
1923 Washington, D.C.  
1924 Ithaca, New York  
1925 New Haven, Connecticut  
1926 Madison, Wisconsin  
1927 Cleveland, Ohio  
1928 New York, N.Y.  
1929 Washington, D.C.  
1930 Toronto, Canada  
1931 Tulsa, Oklahoma  
1932 Cambridge, Massachusetts  
1933 Chicago, Illinois  
1934 Rochester, New York  
1935 New York, N.Y.  
1936 Cincinnati, Ohio.  
1937 Washington, D.C.

**LIST OF CORRESPONDENTS, FELLOWS, MEMBERS AND SUBSCRIBERS OF THE MINERALOGICAL SOCIETY OF AMERICA**

**CORRESPONDENTS**

Brøgger, Waldemar C., University of Oslo, Oslo, Norway.  
Eskola, Pentti, Geological Survey of Finland, Helsingfors, Finland.  
Lacroix, A., Museum of Natural History, Paris, France.  
Niggli, Paul, Eidgenössische Technical High School, Zurich, Switzerland.  
Slavik, Frantisek, Charles University, Prague VI, Czechoslovakia.  

**FELLOWS AND MEMBERS**

(*Indicates Fellow)

*Adams, Elliot Q., Lamp Development Laboratory, Nela Park, Cleveland, Ohio.  
Adams, John W., 1414 Washington Avenue, Golden, Colorado.  
Ahlfeld, Friedrich, Marburg, Germany.  
*Aldrich, Henry R., 419 West 117 Street, New York, New York.  
Allen, C. M., Bay House, Pembroke, Bermuda.  
Allen, Frederick L., 55 East 65 Street, New York, New York.
Allen, Victor T., St. Louis University, St. Louis, Missouri.
*Alling, Harold L., 31 Barrington Street, Rochester, New York.
Amilcar, Mario de Jesus, Institute Superior Tecnico, Lisbon, Portugal.
*Aminoff, Gregori, Riksmuseet, Stockholm, Sweden.
*Andersen, Olaf, Research Laboratory, U. S. Steel Corporation, Kearny, New Jersey.
*Anderson, Charles A., Department of Geology, University of California, Berkeley, California.
Anderson, George H., California Institute of Technology, Pasadena, California.
Andrew, Gerald, 23/36 Sharia Abbas, Heliopolis, Cairo, Egypt.
Andrews, T. G., University of Alabama, University, Alabama.
Antine-Sherman, Helen, Department of Geology, Brooklyn College, Brooklyn, New York.
Arschinow, W. W., Bol. Ordinka, 32, Kw. 1, Moscow, U.S.S.R.
Atkins, Frank P., Jr., 100 Ridgewood Road, Ithaca, New York.
Ayer, H. D., Mille Lacs Indian Trading Post, Onamia, Minnesota.

Bailey, A. M., Director, Colorado Museum of Natural History, City Park, Denver, Colorado.
Bailey, E. M. Andover, Maine.
Bain, George W., 12 Dana Street, Amherst, Massachusetts.
Baker, J. Willard, R.F.D. 1, Wrentham, Massachusetts.
Bales, C. E., Ironton Firebrick Company, Ironton, Ohio.
Balke, Claire C., 40 Deere Park Drive South, Highland Park, Illinois.
Bandy, Mark C., Patino Mines and Enterprises, Llallagua, Bolivia.
Bannerman, H. M., Dartmouth College, Hanover, New Hampshire.
Barbour, Gordon, Care of Dr. Victor Munoz Reyes, Casilla 267, La Paz, Bolivia.
Barret, Harvey P., Box 266, Clearwater, Florida.
Barrett, Richard L., 113–08 Hessler Road, Station E, Cleveland, Ohio.
*Barth, Tom F. W., Mineralogisk Institut, Trondhjemsveien 23, Oslo, Norway.
*Bateman, Alan M., Yale University, New Haven, Connecticut.
*Bayley, William S., University of Illinois, Urbana, Illinois.
Beavan, A. P., Department of Geology, Princeton University, Princeton, New Jersey.
*Behre, Charles H., Jr., Department of Geology, Northwestern University, Evanston, Illinois.
Benner, R. C., Director, Research Laboratory, Carborundum Company, Niagara Falls, New York.
Berger, Anton, Bahnhofplatz 7, Modling bei Wien, Austria.
*Berman, Harry, 12 Geological Museum, Harvard University, Cambridge, Massachusetts.
Bernheimer, Alan W., 2259 North Park Avenue, Philadelphia, Pennsylvania.
Berry, Leonard G., 28 Tyrrel Avenue, Toronto, Ontario, Canada.
*Billings, Marland P., Harvard University, Cambridge, Massachusetts.
Bindrich, Johannes, Seminarstrasse 5, Frankenberg, Saxony, Germany.
Blank, Horace R., Watershed and Hydrologic Studies, Soil Conservation Service, Box 26, Waco, Texas.
Bloom, Mortimer C., Department of Geology, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Bloomer, Robert O., Virginia Geological Survey, University, Virginia.
Blumenthal, Ifaurice, 558 Quincy Street, Brooklyn, New York.
Boatner, H., 420 Woodruff Building, Springfield, Missouri.
Bodwell, Charles S., 31 Huntington Avenue, Sharon, Massachusetts.
Boldyrev, A. K., Vas Ostr. 21, Lin. 2, kv. 12, Leningrad 26, U.S.S.R.
Born, Kendall E., Tennessee Division of Geology, 124 Eighth Avenue North, Nashville, Tennessee.
Boubee, Neree, 3 Boulevard et Place St. Andre-des-Arts, Paris, France.
*Bowen, Norman L., Rosenwald Hall, University of Chicago, Chicago, Illinois.
Boyce, Dick, 613 Morse Street, San Jose, California.
Bradley, F. F., 2466 Broadway, Toledo, Ohio.
Bradley, Janet, 1021 Asylum Avenue, Hartford, Connecticut.
Brant, Arthur M., Lord Hall, Ohio State University, Columbus, Ohio.
Brauneck, Dorothy A., 1905 Vyse Avenue, New York, New York.
Broadwell, William H., 571 Hawthorne Avenue, Newark, New Jersey.
Brown, Glen F., General Management Company, Box 2, Manila, Philippine Islands.
Brown, W. R., 19 Frazier Street, Staunton, Virginia.
*Bruce, E. L., Department of Mineralogy, Queen's University, Kingston, Ontario, Canada.
Bryant, W. M. D., R.F.D. 3, Silverside Road, Wilmington, Delaware.
Buckelew, Harold C., 183 Harding Drive, South Orange, New Jersey.
*Buddington, Arthur F., Princeton University, Princeton, New Jersey.
*Buerger, Martin J., Massachusetts Institute of Technology, Cambridge, Massachusetts.
*Buerger, Newton W., Department of Mineralogy, Queen's University, Kingston, Ontario, Canada.
Buie, Bennett Frank, Amiranian Oil Company, 10 Khiaban Nosrat, Teheran, Iran.
Bunton, Paul B., 1419 H Street, N.W., Washington, D.C.
Burfoot, James D., Jr., Department of Geology, Cornell University, Ithaca, New York.
Butler, Bertram T., College of the City of New York, 139 Street and Convent Avenue, New York, New York.
*Butler, G. M., University of Arizona, Tucson, Arizona.
Butler, John W., Jr., Apartado Aereo 3577, Bogota, Colombia.
Butler, Robert D., Department of Geology, Lehigh University, Bethlehem, Pennsylvania.
*Buttgenbach, Henry J., 7 Avenue Emile Digneffe, Liege, Belgium.
Callahan, William H., Care of Mrs. Ray Young, Station Avenue, Coopersburg, Pennsylvania.
Cameron, Eugene N., Department of Geology, Columbia University, New York, New York.
FELLOWS, MEMBERS AND SUBSCRIBERS

Campbell, Ian, California Institute of Technology, Pasadena, California.

Capps, Mrs. Washington L., 1823 Jefferson Place, N.W., Washington, D.C.

Carhart, Grace M., Hunter College, Bedford Park Boulevard and Navy Avenue, New York, New York.

Carobbi, Guido, Instituto di Mineralogia, R. Universita Modena, Italy.

Carroll, Gerald, Undercliff, Meriden, Connecticut.

Case, Leslie V., 1 Grove Street, Tarrytown, New York.

Chadbourn, E. R., 394 Pleasant Street, Melrose, Massachusetts.

Chapman, Carleton A., Department of Geology, University of Illinois, Urbana, Illinois.

Chapman, Randolph, Department of Geology, Marshall College, Huntington, West Virginia.

Chase, Hugh D., Unity, Maine.

Childs, Edward C., Beryllium Products Corporation, Reading, Pennsylvania.

Chute, Newton E., Department of Geology, Princeton University, Princeton, New Jersey.

Cienkowski, Edmund H., 6803 Bustleton Avenue, Philadelphia, Pennsylvania.


Clinton, Henry G., Box C, Manhattan, Nevada.

Colburn, Burnham S., Greystone Court, Biltmore, North Carolina.

Colburn, William B., 333 Washington Road, Grosse Pointe, Michigan.

Colman, J., Silver State News, Las Vegas, Nevada.

Connolly, Joseph P., 1301 Eleventh Street, Rapid City, South Dakota.

Cooke, S. R. B., Missouri School of Mines and Metallurgy, Rolla, Missouri.

Cooley, Mary E., Department of Geology, Mount Holyoke College, South Hadley, Massachusetts.

Cooper, John R., Mount Union College, Alliance, Ohio.

Corbett, Clifton S., Socony-Vacuum Oil Company, Room 1135, 26 Broadway, New York, New York.

Crawford, Arthur L., 1067 East Fifth Street South, Salt Lake City, Utah.

Crawford, R. D., 1050 Tenth Street, Boulder, Colorado.

Crickmay, Geoffrey W., Box 549, Athens, Georgia.

Cummins, A. B., 515 West 7 Street, Plainfield, New Jersey.


Curtis, Algeron Lewis, Westmoor Laboratory, Chatteris, England.

Dake, H. C., The Mineralogist, 703 Couch Building, Portland, Oregon.

Dave, Alexander, Box 204, Moclips, Washington.

Davidson, Stanley C., 52 Wembley Drive, Sudbury, Ontario, Canada.

Davis, Donald W., 2954 Valentine Avenue, New York, New York.


de Riggi, M. T. C., Peru 562, Buenos Aires, Argentina.

Dennist, William Ens, Jr., Box 373, Newport, Rhode Island.

Denny, M. V., Mineralogical Laboratory, University of Michigan, Ann Arbor, Michigan.

Dodge, Francis D., 69 Avenue “A”, Bayonne, New Jersey.

Dodge, Theodore A., Cerro de Pasco Copper Corporation, Lima, Peru.

Donnay, J. D. H., Department of Mineralogy, Johns Hopkins University, Baltimore, Maryland.

Doten, Robert K., 58 Garfield Street, Cambridge, Massachusetts.

Draeger, R. H., Naval Attaché, American Embassy, Paris, France.

Dufresne, A. O., Director, Quebec Bureau of Mines, Quebec, Canada.
Eggleston, Julius W., Junior College, Riverside, California.
Ehrmann, Martin L., 25 West 68 Street, New York, New York.
Ellsworth, H. V., Canada Geological Survey, Ottawa, Canada.
Elwell, Wilbur J., R.F.D. 4, Box 20, Danbury, Connecticut.
Emery, Alden H., American Chemical Society, Mills Building, Washington, D.C.
Emmons, Richard C., University of Wisconsin, Madison, Wisconsin.
Engel, Rene, 1148 Constance St., Pasadena, California.
English, George L., 50 Brighton Street, Rochester, New York.
Eromenok, Louis, 168 Grove Street, Passaic, New Jersey.

Fahlquist, Frank E., 71 Massasoit Avenue, Edgewood, Rhode Island.
Fairbairn, H. W., Department of Geology, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Fairchild, Ralph B., 2109 West Mistletoe, San Antonio, Texas.
Faust, George T., Box 45, South Finley Avenue, Basking Ridge, New Jersey.
*Fettke, Charles R., 1118 Wightman Street, Squirrel Hill Station, Pittsburgh, Pennsylvania.
*Fisher, Lloyd W., Department of Geology, Bates College, Lewiston, Maine.
Fisk, Henry G., Calaveras Cement Company, San Andreas, California.
Fleener, F. L., Joliet Township High School and Junior College, Joliet, Illinois.
Fleischer, Arthur, 81 Navajo Street, Salt Lake City, Utah.
Fleischer, Michael, Geophysical Laboratory, Washington, D.C.
Foote, Freeman, Department of Geology, Williams College, Williamstown, Massachusetts.
Ford, Hugh Alexander, British Consulate General, Room 724, 10 Post Office Square, Boston, Massachusetts.
*Ford, William E., 876 Yale Station, New Haven, Connecticut.
Foster, Wilder D., 4800 Forbes Street, Pittsburgh, Pennsylvania.
Franklin, Elmer S., 2800 North Sichel Street, Los Angeles, California.
*Fraser, Donald McCoy, Department of Geology, Lehigh University, Bethlehem, Pennsylvania.
Fraser, Horace J., Department of Geology, California Institute of Technology, Pasadena, California.
Fraser, R. J., Jr., 3027 Andrita Street, Los Angeles, California.
Fretz, A. Henry, 42 West Market Street, Bethlehem, Pennsylvania.
Frondel, Clifford, Department of Geology, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Fuller, Richard E., 1642 Federal Avenue, Seattle, Washington.

*Gage, R. B., Box 199, Trenton, New Jersey.
Gallagher, David, 349 Clark Road, Brookline, Massachusetts.
Garretty, M. D., Central Geological Investigation, British Mine Office, Broken Hill, New South Wales, Australia.
Gates, Ellis H., Box 9102, University of Nevada, Reno, Nevada.
FELLOWS, MEMBERS AND SUBSCRIBERS

*Gillson, Joseph L., 8060 DuPont Building, Wilmington, Delaware.
Ginsberg, A. S., Pesotschnaia 4, KV 35, Leningrad, U.S.S.R.
Goddard, Archibald N., 630 Virginia Park, Detroit, Michigan.
Goldich, Samuel S., Department of Geology, A. and M. College of Texas, College Station, Texas.
Goldring, Ewart D., Box 26, Buffalo, Wyoming.
Goodspeed, George E., University of Washington, Seattle, Washington.
Goudiey, Hatfield, Eastern Exploration Company, Goldfield, Nevada.
*Graham, R. P. D., McGill University, Montreal, Canada.
Grah, Harry, 885 Cauldwell Avenue, Bronx, New York.
*Graton, L. C., Harvard University, Cambridge, Massachusetts.
Grave, Oliver R., Missouri School of Mines, Rolla, Missouri.
Greig, J. W., Geophysical Laboratory, Washington, D.C.
Griever, J. M., 405 Ninita Parkway, Pasadena, California.
Grill, Prof., Direttore dell' Instituto de Mineralogia, Museo Civico, Corso Venezia, Milan, Italy.
*Gruner, John W., University of Minnesota, Minneapolis, Minnesota.
Grutt, Eugene, Jr., 329 West 4 Street, Reno, Nevada.
*Guild, Frank N., 107 Olive Road, Tucson, Arizona.
Gunnell, E. Mitchell, Box 323, Columbia, Missouri.
Gysin, M. E., Laboratoire de Mineralogie de l'Universite, Quai de l'Ecole-de-Medecin, Geneva, Switzerland.

Haff, John C., Department of Geology, Columbia University, New York, New York.
Hagner, Arthur F., Department of Geology, Columbia University, New York, New York.
Hall, F. P., 206 Granger Road, R.F.D. 4, Syracuse, New York.
*Hall, George M., University of Tennessee, Knoxville, Tennessee.
Hamilton, Robert G., Schlumberger Well Surveying Corporation, 813 Colcord Building, Oklahoma City, Oklahoma.
Hanley, Franklin B., Department of Geology, University of Minnesota, Minneapolis, Minnesota.
Hanley, John B., 323 Main Street, Lewiston, Maine.
Harcourt, G. A., Copper Cliff, Ontario, Canada.
Hartley, B. W., Haileybury, Ontario, Canada.
*Hawkins, A. C., 300 Livingston Avenue, New Brunswick, New Jersey.
*Hawley, James E., Queen's University, Kingston, Ontario, Canada.
Heinemann, Robert E. S., 1633 East Hawthorne Street, Tucson, Arizona.
Hendricks, Sterling B., Fertilizer Research Laboratory, Friendship P.O., Washington, D.C.
Herlinger, D. Erich, P.O. Box 26, Rehovoth, Palestine.
Herring, L. C., 628 Putnam Street, Orlando, Florida.
Hess, Frank L., 1221 Newton Street, N.E., Washington, D.C.
Hess, Harry H., Department of Geology, Princeton University, Princeton, New Jersey.
Heyl, George R., c/o Richmond Petroleum Co. of Colombia, Apartado National No. 3, Ibagué, Colombia.
Hickok, William O. IV, 1409 North Front Street, Harrisburg, Pennsylvania.
Hill, H. Stanton, 288 North Holliston Avenue, Pasadena, California.
Hill, Ralph F., 35 Manchester, Hartford, Connecticut.
Hill, Thomas M., Department of Geology, Vassar College, Poughkeepsie, New York.
Himmel, Hans, Mineralogical Lab. Haupfstrasse 48, Heidelberg, Germany.
Hirsch, Dipl. Ing. Willy, Fürstenstrasse 22, P, Munich, Germany.
Hirschi, Hans, Mineralogical Laboratory, Muldenstrasse 6, Berne, Switzerland.
Hodge, Edwin T., 2915 Lu ray Terrace, N.W., Portland, Oregon.
Holden, Guerdon S., Plain Dealer Building, Cleveland, Ohio.
Holmes, Arthur, Science Laboratory, South Road, Durham, England.
Holmes, Ralph J., Department of Geology, Columbia University, New York, New York.
Hones, Arthur P., 505 East Prospect Avenue, State College, Pennsylvania.
Hooker, Marjorie, 32-14 146 Street, Flushing, New York.
Horn, Aubrey E., Naraguta Tin Mines, Jos, Plateau Province, Northern Nigeria, West Africa.
Horsfall, D., 16 Robinwood Avenue, Toronto, Ontario, Canada.
Howells, William C., Department of Geology, McGill University, Montreal, Quebec, Canada.
Howland, Arthur L., Northwestern University, Evanston, Illinois.
Hunt, Walter F., Mineralogical Laboratory, University of Michigan, Ann Arbor, Michigan.
Hurlbut, Cornelius S., Jr., Department of Mineralogy, Harvard University, Cambridge, Massachusetts.
Hurst, George D., 322 West 56 Street, New York, New York.
Hutton, C. Osborne, Department of Mineralogy and Petrology, Downing Street, Cambridge, England.
Imberg, A. Emmett, 508 S.W. Second Avenue, Galva, Illinois.
Ingerson, Earl, Geophysical Laboratory, Washington, D.C.
Insley, Herbert, Bureau of Standards, Washington, D.C.
Irwin, William H., Box 656, Chapel Hill, North Carolina.
Jacobs, Elbridge C., University of Vermont, Burlington, Vermont.
Jarrell, O. W., Chile Exploration Company, Chuquicamata (via Antofagasta), Chile.
Jenney, C. P., McIntyre Porcupine Mines, Schumacher, Ontario, Canada.
Jensen, Nan C., 1325 Irving Street, N.W., Washington, D.C.
Johannsen, Albert, University of Chicago, Chicago, Illinois.
Johnson, Bertrand L., 810 Highland Drive, Woodside Park, Silver Spring, Maryland.
Johnson, J. Harlan, Box 343, Golden, Colorado.
Johnston, R. A. A., 112 Old Forest Hill Road, Toronto 10, Canada.
Jolliffe, Fred T., Bureau of Economic Geology, Canada Geological Survey, Ottawa, Canada.
Jondahl, Dan, 210 South Fifth Street, Las Vegas, Nevada.
Jones, Gardner H., Box 136, West Lebanon, New Hampshire.
Jones, R. E., New Wilmington, Pennsylvania.

Kaiser, Edward Peck, Room 4–344, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Keller, W. D., 208 Swallow Hall, Columbia, Missouri.
Keppel, David, Department of Geology, Wesleyan University, Middletown, Connecticut.
*Kerr, Paul F., Columbia University, New York, New York.
*Kerr-Lawson, Ferga Carmichael, Box 5, Swastika, Ontario, Canada.
Kimur, K., 1614 West Whittier Boulevard, Whittier, California.
Knabe, William C., 3853 North Gratz Street, Philadelphia, Pennsylvania.
*Knopf, Adolph, Yale University, New Haven, Connecticut.
Keller, Paul W., University of Dayton, Dayton, Ohio.
*Kozu, S., Tohoku Imperial University, Sendai, Japan.
Kraus, Edward H., University of Michigan, Ann Arbor, Michigan.
Krause, A. T., 1400 Guardian Building, Cleveland, Ohio.
*Krishnan, M. S., 27 Chowringhee, Calcutta, India.
Kuenstler, Walter E., 410 Lafayette Avenue, Grantwood, New Jersey.
Kurbatov, Joann D., 7133 34 Street, Berwyn, Illinois.
*Landes, Kenneth K., University of Kansas, Lawrence, Kansas.
*Lane, Alfred C., 22 Arlington Street, Cambridge, Massachusetts.
*Larsen, Esper S. Jr., 59 Orchard Street, Belmont, Massachusetts.
Lausen, Carl, 308 Stapleton Building, Billings, Montana.
Leard, Byron, Gatesville, Texas.
Lee, Harley C., Department of Mineralogy, Ohio State University, Columbus, Ohio.
Lee, O. Ivan, 2624 Boulevard, Jersey City, New Jersey.
Lemcke, W. L., 609 14 Street, Franklin, Pennsylvania.
Lemmon, Dwight M., 2180 Bryant Street, Palo Alto, California.
Lind, J. C., Weber College, Ogden, Utah.
*Lindgren, Waldemar, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Longchambon, H., Department of Mineralogy, Faculté des Sciences, 18 Quai Claude Bernard, Lyon, France.
*Lonsdale, John T., Iowa State College, Ames, Iowa.
*Louderback, George D., University of California, Berkeley, California.
Lovering, T. S., Department of Geology, University of Michigan, Ann Arbor, Michigan.

Marble, John P., 37 East Bradley Lane, Chevy Chase, Maryland.
Martens, James H. C., 308 Spring Street, Morgantown, West Virginia.
*Mathews, Edward B., Johns Hopkins University, Baltimore, Maryland.
Mattison, Matt, Rosburg, Washington.
Maurice, Charles S., Department of Geology, University of Tennessee, Knoxville, Tennessee.
Mawby, M., Zinc Corporation Ltd., Broken Hill, New South Wales, Australia.
May, Timothy, Department of Geology, Catholic University, Washington, D.C.
Maynard, Ernest A., 161-41 86 Avenue, Jamaica, New York.
*Maynard, James E., Syracuse University, Syracuse, New York.
*Mayo, Evans B., 315 South Lincoln Avenue, Glendale, California.
McCarty, James F., Hecla Mining Company, Burke, Idaho.
*McCaughey, William J., Ohio State University, Columbus, Ohio.
McConnell, Duncan, Department of Geology, University of Texas, Austin, Texas.
McKinley, William C., 2201 North Sheridan Road, Peoria, Illinois.
*McKinstry, Hugh E., 140 Dean Street, West Chester, Pennsylvania.
*McLaughlin, Donald H., Department of Mining Geology, Harvard University, Cambridge, Massachusetts.
McLellan, Roy D., 24 Lillian Terrace, Woodbridge, New Jersey.
McNairn, W. Harvey, McMaster University, Hamilton, Ontario, Canada.
McVay, T. N., University of Alabama, University, Alabama.
Meen, V. Ben, Department of Mineralogy, University of Toronto, Toronto, Canada.
Meier, Adolph E., Box 876, Swarthmore College, Swarthmore, Pennsylvania.
Melhase, John, 675 Vincente Avenue, Berkeley, California.
Mencher, Ely, Department of Geology, Massachusetts Institute of Technology, Cambridge, Massachusetts.
Merritt, C. A., University of Oklahoma, Norman, Oklahoma.
Merritt, Philip L., 1937 West Main Street, Stamford, Connecticut.
*Merwin, Herbert E., Geophysical Laboratory, Washington, D.C.
*Miller, Benjamin L., Lehigh University, Bethlehem, Pennsylvania.
Miller, Franklin S., 1029 Bryden Road, Columbus, Ohio.
*Miller, William J., University of California at Los Angeles, California.
Minami, Yei-ichi, 1 Uchikoshi-cho, Nakano-Ku, Tokyo, Japan.
Modell, David, 15 St. Francis Place, Brooklyn, New York.
Montgomery, Arthur, 1 East 44 Street, New York, New York.
Moore, Bernard N., c/o Compania Consolidada de Petroleo, Apartado 1706, Caracas, Venezuela.
Moore, Charles Henkel, Jr., 203 14 Street, University, Virginia.
*Moore, Elwood S., University of Toronto, Toronto, Canada.
Moran, Thomas G., 343 Duane Avenue, San Gabriel, California.
Morgan, Leonard A., 216 Jones Avenue, Burlington, New Jersey.
Morozewicz, J., Geological Survey of Poland, Rawowiecka Street, 4, Warsaw, Poland.

*Morris, Frederick K., Massachusetts Institute of Technology, Cambridge, Massachusetts.

*Morton, James F., Paterson Museum, Paterson, New Jersey.

Murdoch, Joseph, University of California at Los Angeles, California.

Murphy, Richard, Falconbridge Nickel Mines, Falconbridge, Ontario, Canada.

Murray, Albert N., University of Tulsa, Tulsa, Oklahoma.


Nelson, Gaylord, 126 Sheldon Avenue, S.E., Grand Rapids, Michigan.


*Newhouse, Walter H., Massachusetts Institute of Technology, Cambridge, Massachusetts.

Newman, G. H., Marsman and Company, Box 297, Manila, Philippine Islands.

Nichols, Henry W., Associate Curator, Field Museum of Natural History, Chicago, Illinois.

Niles, Glenn H., Box 1406, Paterson, New Jersey.

Nisson, Bill, 849 "D" Street, Petaluma, California.

*Noble, James A., Homestake Mining Company, Lead, South Dakota.


Northrup, M. Allen, 176 Fairview Avenue, Jersey City, New Jersey.


Odman, Fil. Licent. Olaf H., Box 77, Boliden, Sweden.

Oka, Shinobu, Care of Chikuto-Yugyosho, Shinchiku-shu, Taiwan, Japan.

Okada, Ietaka, Chemical Laboratory, Shanghai Science Institute, 120 Route Ghizi, Shanghai, China.

*Orcel, Jean, Museum, 61 Rue de Buffon, Paris, France.

Over, Edwin J., Jr., 1316 North Prospect Street, Colorado Springs, Colorado.

*Pabst, Adolf, University of California, Berkeley, California.

Pain, A. C. D., Box 209, Rangoon, Burma.

*Palache, Charles, 106 Appleton Street, Cambridge, Massachusetts.

Palumbo, Roberto, 2 Via Gerolamo Fracastoro, Rome, Italy.

Parisi, Bruno, Museo Civico di Storia Nat, Milano, Milan, Italy.


*Parker, Robert L., Technische Hochschule, Zurich, Switzerland.

Parrish, William, Department of Geology, Massachusetts Institute of Technology, Cambridge, Massachusetts.

*Parsons, Arthur L., University of Toronto, Toronto, Ontario, Canada.

Parsons, Willard H., Department of Geology, Hamilton College, Clinton, New York.

Payne, Joy, Sweet Springs, Missouri.

*Peacock, Martin A., University of Toronto, Toronto, Ontario, Canada.

Pearce, D. W., Department of Chemistry, Purdue University, Lafayette, Indiana.

Pearl, Richard M., 749 Sixteenth Street, Boulder, Colorado.

*Peck, Albert B., Mineralogical Laboratory, University of Michigan, Ann Arbor, Michigan

Peck, J. E., 2636 Piedmont Avenue, Berkeley, California.
Pegau, Arthur A., Rugby Road, Charlottesville, Virginia.
Peoples, Joe Webb, Department of Geology, Wesleyan University, Middletown, Connecticut.
Perry, Elwyn L., Department of Geology, Williams College, Williamstown, Massachusetts.
Peterson, Paul, Upton, Wyoming.
Pfordt, Otto F., Cairo, New York.
Philbrick, Shailer S., 87 South Fremont Street, Pittsburgh, Pennsylvania.
Philbrook, Mrs. P. M., Mineralogical Society of Northern California, Box 184, Sacramento, California.
Pohl, John C., Jr., 204 North Tenth Street, Easton, Pennsylvania.
Poor, R. S., Birmingham-Southern College, Birmingham, Alabama.
Pope, G. N., 1820 Bay Street, Alameda, California.
Prince, Alan T., 547 Ruxton Road, Toronto, Ontario, Canada.
Pulliam, Martin, Maroa, Illinois.
Quinn, Alonzo, Department of Geology, Brown University, Providence, Rhode Island.
Quirke, Terence T., University of Illinois, Urbana, Illinois.
*Ramdohr, Paul, Mineralogisches Institut der Universität, Invalidenstrasse 43, Berlin N. 4, Germany.
*Ramsdell, Lewis S., Mineralogical Laboratory, University of Michigan, Ann Arbor, Michigan.
Raymond, Louis C., Mountain Copper Company, Ltd., Matheson, California.
Reamer, Louis, 482 Lincoln Avenue, Orange, New Jersey.
Reeder, Oliver H., 101 Charlote Road, Guilford, Baltimore, Maryland.
Reinhard, M., Mineralogical Institute, University Basel, Switzerland.
Reyes, Jorge Munoz, Apartado 267, La Paz, Bolivia.
Richmond, Wallace E., Jr., 30 Freeman Street, Arlington, Massachusetts.
Richard, Hilton L., 1601 South Carson Avenue, Tulsa, Oklahoma.
Ridge, John, Cerro de Pasco Copper Corporation, Morococha, Peru.
Rigg, Robert M., Department of Geology, University of Wichita, Wichita, Kansas.
Rivero, Manuel, Care of J. B occardo y Cia, Caracas, Venezuela.
Roe, Howard T., Box 443, Fredericksburg, Texas.
*Rogers, Austin F., Stanford University, California.
Rollins, Ross, Riverbank Court, Cambridge, Massachusetts.
Rosenberg, Signor Ernesto Romano, Via Mezzocannone 31, Naples, 70, Italy.
Rosenholz, Joseph L., Rensselear Polytechnic Institute, Troy, New York.
Rosenkraus, R. R., 3 North Meridian Street, Red Key, Indiana.
*Rosicky, Vojtech, University Masaryks, Kounicora 59, Brno, Czechoslovakia.
Rouse, John T., Department of Geology, Ohio State University, Columbus, Ohio.
Rowan, Sue J., State Teachers College, Hyannis, Massachusetts.
Rowland, Robert W., 4010 Alameda Drive, San Diego, California.
Roy, Chalmer J., School of Geology, Louisiana State University, Baton Rouge, Louisiana.
Royer, Louis, Laboratoire de Geologie et Mineralogie, Alger, Algeria.
Runner, Delmar G., 4606 47 Street N.W., Washington, D.C.
*Runner, Joseph J., State University of Iowa, Iowa City, Iowa.
FELLOWS, MEMBERS AND SUBSCRIBERS

Rutherford, Ralph L., Department of Geology, University of Alberta, Edmonton, Alberta, Canada.
Ruthruff, Robert F., 14 Maple Place, Nutley, New Jersey.

Sahlin, Carl Ingemar, Gruvkontoret, Malmberget, Sweden.
Salomon, L. G., 75 Conklin Avenue, Woodmere, New York.

Sampson, Edward, Princeton University, Princeton, New Jersey.
Sanborn, Frank, Division of Mines, Ferry Building, San Francisco, California.
Sandberg, Adolph E., Department of Geology, University of Cincinnati, Cincinnati, Ohio.

Schairer, John F., Geophysical Laboratory, Washington, D.C.
Schmitt, Harrison, Box 572, Silver City, New Mexico.
Sahlin, Carl Ingemar, Gruvkontoret, Malmberget, Sweden.
Salomon, L. G., 75 Conklin Avenue, Woodmere, New York.
Schneider, Frederick W., 8451 86 Avenue, Woodhaven, New York.
Schneider, Hyrum, University of Utah, Salt Lake City, Utah.
Schneiderhöhn, Hans, Universität de Freiburg, Burgundstrasse 30, Freiburg, Germany.
Schoep, Alfred, University of Ghent, Ghent, Belgium.
Schrader, Frank C., 20 Old Chester Road, Bethesda, Maryland.
Seaman, Hubert G., 114 Second Street, Ridgefield Park, New Jersey.
Selfridge, George C., Jr., 1430 Race Street, Denver, Colorado.
Severson, Lloyd J., Siglo XX, Llallagua, Bolivia.
Shand, S. James, Department of Geology, Columbia University, New York, New York.

Schaub, Benjamin M., 123 South Street, Northampton, Massachusetts.
Shay, D. C., July 7 Petroleum Building, Fort Worth, Texas.
Shipton, W. D., Department of Geology, Washington University, St. Louis, Missouri.
Shone, T. L. H., Box 20, Postmasburg, Hay, South Africa.

Short, Max N., University of Arizona, Tucson, Arizona.

Schrader, John J. S., 184 Alvin Street, Freeland, Pennsylvania.

Simpson, Edward S., Government Laboratory, Wellington Street, Perth, Western Australia.

Singewald, Quentin D., Department of Geology, University of Rochester, Rochester, New York.
Skea, E. M., Box 46, Pilgrims Rest, Transvaal, South Africa.

Slawson, Chester B., Mineralogical Laboratory, University of Michigan, Ann Arbor, Michigan.

Smith, Cloyd M., Editor, Mechanization, Munsey Building, Washington, D.C.
Smith, D. T., Rensselaer Polytechnic Institute, Troy, New York.
Smith, Harold T. U., Geology Department, University of Kansas, Lawrence, Kansas.
Smith, Knowles B., Department of Mining Engineering, University of Notre Dame, Notre Dame, Indiana.
Smith, Peter A., Box 183, Highland Mills, New York.

Snellgrove, Alfred K., Princeton University, Princeton, New Jersey.
Sniffen, E. W., 3111 Boulevard, Hampton, Virginia.
Snow, Roland B., 7008 South Shore Drive, South Shore Station, Chicago, Illinois.
Sohlberg, Rudolph G., 631 Colorado Avenue, Palo Alto, California.

Spence, Hugh S., Canada Department of Mines, Ottawa, Ontario, Canada.
Sproat, Ira E., Gorham Avenue, Westport, Connecticut.

Stanton, Gilman S., 245 West 104 Street, New York, New York.
Staples, Lloyd W., 223 Cowper Street, Palo Alto, California.

Starbird, Leonard H., 19 Craggmore Avenue, South Portland, Maine.


Stevenson, John S., Department of Mines, Victoria, British Columbia, Canada.

Stewart, Duncan, Michigan State College, East Lansing, Michigan.

Stoiber, Richard E., 17 Downing Road, Hanover, New Hampshire.

Stow, Marcellus H., 202 McDowell Street, Lexington, Virginia.

Strock, Lester W., Geologisk Museum, Trondhjemsviein 23, Oslo, Norway.

Stuckey, J. L., 1911 Sunset Drive, Raleigh, North Carolina.

Sueno, Teiroke, 484 Chome, Tamagawa-Okusawacho, Setagaya-Ku, Tokyo, Japan.

Suflie, G. G., Noranda, Quebec, Canada.

Sugi, Ushishi, 415 Shimo-Ochiai (near Tokyo), Japan.

Swartzlow, Carl, Lassen Volcanic National Park, Mineral via Red Bluff, California.

Sweeney, W. A., Box 5702, Metropolitan Station, Los Angeles, California.

Switzer, George, Dept. Mineralogy, Harvard University, Cambridge, Massachusetts.

Taber, Stephen, University of South Carolina, Columbia, South Carolina.

Tani, Iwao, 808 Sukematsu, Ohtsu-cho, Senhokugun, near Osaka, Japan.

Tarr, William A., 704 Westwood Avenue, Columbia, Missouri.

Tatge, Eleanor, 1470 Chapin Street, N. W., Washington, D.C.

Terpstra, P., Mineralogisch Kristallographisch Institut des Ryks Universitat, Gronigen, Holland.

Terry, Norton, 1325 South College Avenue, Fort Collins, Colorado.

Thibault, Newman W., 54 Hillcroft Avenue, Worcester, Massachusetts.

Thiesmeyer, Lincoln R., 13 Bellaire Court, Appleton, Wisconsin.

Thomas, W. Hersey, 145 East Gorgas Lane, Mt. Airy, Philadelphia, Pennsylvania.

Thompson, M. R., 20 Williams Lane, Chevy Chase, Maryland.

Thomson, Ellis, University of Toronto, Toronto, Ontario, Canada.

Thowless, Herbert L., 255 Fourth Street, Newark, New Jersey.

Timmons, E. L., 1516 Culebra Street, Colorado Springs, Colorado.

Tolman, Carl, Washington University, St. Louis, Missouri.

Tomlinson, W. Harold, 114 Yale Avenue, Swarthmore, Pennsylvania.


Toyoda, Hideyoshi, Care of Sumitomo Honsha, “Kozanka,” 5-chome, Kitahama, Higashiku, Osaka, Japan.

Tracy, John M., Route 11, Box 168, Milwaukie, Oregon.

Trainer, David W., Jr., 48 Payne Street, Hamilton, New York.


Trimble, Clinton E., Division of Chemistry, Georgia School of Technology, Atlanta, Georgia.


Tunell, George, Geophysical Laboratory, Washington, D.C.

Tuthill, Isabel H., Rocky Point, New York.

Twachtrelisde, A. A., Lermontowskaia 10, Tbilisi, U.S.S.R.

Vance, R. C., Woodland Road, Long Meadow, Pittsford, New York.

Vandereike, Paul, Route 5, Box 128, Bakersfield, California.

Van Vlack, Mrs. Hall G., 38 Royal Avenue, Jamaica, New York.

Varni, Stephen, 580 Fifth Avenue, Station G, New York, New York.
Vermaat, Ir. J. G., Kwala-Bingei (Langcat) S.O.K., Dutch East Indies.

Vernadsky, W., Academy of Science, Mineralogical Univ., Leningrad, U.S.S.R.


Vieweg, Hermann F., 323 Lawrence Avenue, Highland Park, New Jersey.

Vigfusson, V. A., Provincial Analyst, Department of Chemistry, University of Saskatchewan, Saskatoon, Saskatchewan, Canada.

*Von Schlichten, Otto, University of Cincinnati, Cincinnati, Ohio.

*Vonsen, M., Petaluma, California.

Wade, F. Alton, Department of Geology, Miami University, Oxford, Ohio.

Wahlstrom, Ernest E., University of Colorado, Boulder, Colorado.

Waldo, Allen W., 1335 North Van Buren, Stockton, California.

Waldschmidt, W. A., 4840 Tennyson Street, Denver, Colorado.

Walker, Marshall O., Norton Hall, University of Buffalo, 3435 Main Street, Buffalo, New York.

*Walker, Thomas L., 20 East Avondale Road, Toronto, Ontario, Canada.

*Wallace, Robert C., University of Alberta, Edmonton, Alberta, Canada.

Walther, Charles, Jr., Caprock, New Mexico.

Walther, P., 508 Muriel Parkway, Elizabeth, New Jersey.

*Wandke, Alfred, Guanajuato Cons. Mining Co., Guanajuato, Mexico.

*Watanabe, Manjiro, Tohoku Imperial University, Sendai, Japan.

Watanabe, Takeo, Mineralogisch-petrographische Institut, Invalidenstrasse 43, Berlin N. 4, Germany.


Watson, L. R., Science Department, Cosby High School, Cosby, Tennessee.

Webb, Robert, Department of Geology, University of California at Los Angeles, Westwood, California.

Wedel, Arthur, Box 282, Henderson, Kentucky.

Weidhaas, Ernest, 63 Iden Avenue, Pelham Manor, New York.

*Weidman, Samuel, 512 Lahoma Street, Norman, Oklahoma.

Wellman, Walter L., Route 2, Box 39, Albuquerque, New Mexico.

Wellnitz, Anna M., Brooklyn College, Brooklyn, New York.


*Westgate, Lewis G., 124 Oak Hill Avenue, Delaware, Ohio.

*Wherry, Edgar T., 27 Oberlin Avenue, Swarthmore, Pennsylvania.

Whitaker, George C., Schaaf Road, RD 3, Brooklyn Station, Cleveland, Ohio.

White, George W., University of New Hampshire, Durham, New Hampshire.


Whitney, W., 463 West Street, Room 1001, New York, New York.

Wigglesworth, Edward, 234 Berkeley Street, Boston, Massachusetts.

Wilke, R. M., Palo Alto, California.

Wilkinson, W. D., Geology Department, Oregon State Agricultural College, Corvallis, Oregon.


Williams, Charles R., 58 Lexington Avenue, Cambridge, Massachusetts.

Williamson, Earl, Box 663, Manila, Philippine Islands.

Willis, Willett R., 1343 North Nevada Avenue, Colorado Springs, Colorado.

Wilson, Ernest H., 43 Forest Avenue, Caldwell, New Jersey.

*Winchell, Alexander N., University of Wisconsin, Madison, Wisconsin.
WINTER, MUNROE, 1491 Edgewood Road, Lake Forest, Illinois.
Wishard, James S., 56 Hammond Street, Rochester, New York.
Withrow, James R., 77 16th Avenue, Columbus, Ohio.
*Wolff, John E., 360 South Grand Avenue, Pasadena, California.
*Woodford, Alfred O., Stanford University, California.
Woods, Arthur E., 208 Centre Street, Orange, New Jersey.
Woodward, Horace A., 43 Lowell Avenue, West Orange, New Jersey.
*Wright, Fred E., Geophysical Laboratory, Washington, D.C.
Wuestner, Herman, 3335 Cavanaugh Avenue, Cincinnati, Ohio.

Yatsevitch, Gratian M., 4 Bradford Road, Watertown, Massachusetts.
Young, John A., Jr., Geology Department, Harvard University, Cambridge, Massachusetts.

Zodiac, Peter, Box 29, Peekskill, New York.

SUBSCRIBERS

UNITED STATES

ARIZONA
University of Arizona Library, Tucson, Arizona.

ARKANSAS
University of Arkansas, Geology Department, Fayetteville, Arkansas.
Carnegie City Library, Fort Smith, Arkansas.

CALIFORNIA
University of California Library, Berkeley, California.
Pomona College Library, Claremont, California.
Fresno State Teachers College Library, Fresno, California.
Scripps Institute of Oceanography, La Jolla, California.
Champion Sillimanite, Inc., Box 117, Laws, Inyo County, California.
Los Angeles Public Library, 5th Street and Broadway, Los Angeles, California.
University of California at Los Angeles, 405 Hilgard Avenue, Los Angeles, California.
California Institute of Technology, Pasadena, California.
Pasadena Junior College Library, Physical Science Department, Pasadena, California.
California Junior College Library, Terracina Drive, Riverside, California.
Mechanics Mercantile Library, Mechanics Institute, 57 Post Street, San Francisco, California.
State Division of Mines, Ferry Building, San Francisco, California.
Stanford University Library, Stanford University, California.

COLORADO
University of Colorado Library, Boulder, Colorado.
Public Library, Technical Department, Denver, Colorado.
Colorado School of Mines Library, Golden, Colorado.
FELLOWS, MEMBERS AND SUBSCRIBERS

CONNECTICUT
Bridgeport Public Library, 925 Broad Street, Bridgeport, Connecticut.
Wesleyan College Library, 175 North Street, Middletown, Connecticut.
American Cyanamid Company, Abstract Department, 1937 West Main Street, Stamford, Connecticut.
American Cyanamid Company, Exp. Lab., 1937 West Main Street, Stamford, Connecticut.

DISTRICT OF COLUMBIA
Library of Congress, Washington, D.C.
Geophysical Laboratory, 2801 Upton Street, Washington, D.C.
United States National Museum, Washington, D.C.

GEORGIA
Georgia School of Technology Library, Atlanta, Georgia.

IDAHO
Idaho University Library, Moscow, Idaho.

ILLINOIS
Field Museum of Natural History, Chicago, Illinois.
Northwestern University Library, Evanston, Illinois.
University of Illinois Library, Urbana, Illinois.

INDIANA
Earlham College Library, Richmond, Indiana.

IOWA
Iowa State College Library, Ames, Iowa.
State University of Iowa Library, Iowa City, Iowa.

KANSAS
University of Kansas Library, Periodical Department, Lawrence, Kansas.
The Watson Library, Kansas State Agricultural College, Manhattan, Kansas.

KENTUCKY
University of Kentucky Library, Lexington, Kentucky.

LOUISIANA
Louisiana State University Library, Baton Rouge, Louisiana.

MAINE
Maine Mineralogical and Geological Society, Miss Jessie L. Beach, Secretary, 6 Allen Avenue, Portland, Maine.

MARYLAND
Johns Hopkins University Library, Baltimore, Maryland.

 MASSACHUSETTS
Amherst College Library, Amherst, Massachusetts.
Boston Public Library, Copley Square, Boston, Massachusetts.
Library, Department of Mineralogy, Harvard University, Cambridge, Massachusetts.
Massachusetts Institute of Technology Library, Cambridge, Massachusetts.
Smith College Library, Northampton, Massachusetts.
Wellesley College Library, Wellesley, Massachusetts.
Clark University Library, Worcester, Massachusetts.

**MICHIGAN**

University of Michigan General Library, Ann Arbor, Michigan.
Central High School Library, Bay City, Michigan.
Cranbrook Institute of Science, Bloomfield Hills, Michigan.
Champion Spark Plug Company, Ceramic Division, Mr. Riddle, 8525 Butler Avenue, Detroit, Michigan.
Michigan State College Library, East Lansing, Michigan.

**MINNESOTA**

University of Minnesota Library, Minneapolis, Minnesota.
Carleton College Library, Northfield, Minnesota.

**MISSOURI**

University of Missouri General Library, Columbia, Missouri.
Kansas City Public Library, 9th and Locust Street, Kansas City, Missouri.
Missouri School of Mines and Metallurgy Library, Rolla, Missouri.
Washington University Library, St. Louis, Missouri.
St. Louis University Library, Grand and Pine Boulevards, St. Louis, Missouri.

**MONTANA**

Montana School of Mines, Butte, Montana.
Montana State University Library, Missoula, Montana.

**NEVADA**

University of Nevada Library, Reno, Nevada.

**NEW HAMPSHIRE**

Hamilton Smith Library, University of New Hampshire, Durham, New Hampshire.
Dartmouth College Library, Hanover, New Hampshire.

**NEW JERSEY**

New Jersey Zinc Company Library, Franklin, New Jersey.
Johns-Manville Research Laboratories, Mrs. B. R. Smalley, Librarian, Manville, New Jersey.
Newark Museum Association, 49 Washington Street, Newark, New Jersey.
Princeton University Library, Princeton, New Jersey.

**NEW MEXICO**

University of New Mexico Library, Albuquerque, New Mexico.
New Mexico State School of Mines, Socorro, New Mexico.

**NEW YORK**

New York State Library, Albany, New York.
Buffalo Museum of Science Research Library, Humboldt Street, Buffalo, New York.
The Spencer Lens Company, Buffalo, New York.
University of Buffalo Library, 3425 Main Street, Buffalo, New York.
Hamilton College Library, Clinton, New York.
Cornell University Library, Ithaca, New York.
American Museum of Natural History Library, New York, New York.
College of the City of New York Library, Periodical Division, Convent Avenue and 139
Street, New York, New York.
Columbia University Library, New York, New York.
Engineering Society Library, 29 West 39 Street, New York, New York.
Geological Society of America, 419 West 117 Street, New York, New York.
E. Leitz, Inc., 730 Fifth Avenue, New York, New York.
Metal and Thermit Corporation, 120 Broadway, New York, New York.
New York Mineralological Club, F. H. Pough, Secretary, American Museum of Natural
History, New York, New York.
New York Public Library, 476 Fifth Avenue, New York, New York.
New York University, Washington Square Library, 100 Washington Square East, New
York, New York.
Carl Zeiss, Inc. Advertising Division, 485 Fifth Avenue, New York, New York.
Union Carbide and Carbon Research Laboratories, Inc. 4625 Royal Avenue, Niagara Falls,
New York.
Rochester Public Library, 115 South Avenue, Rochester, New York.
University of Rochester Library, Rochester, New York.
Wards' Natural Science Establ, 294 Goodman Street, North, Rochester, New York.
Union College Library, Schenectady, New York.
Syracuse University Library, Syracuse, New York.

NORTH CAROLINA

University of North Carolina Library, Chapel Hill, North Carolina.
Duke University Library, Durham, North Carolina.
North Carolina State College of Agriculture and Engineering, W. P. Kellam, Librarian,
State College Station, Raleigh, North Carolina.

NORTH DAKOTA

University of North Dakota Library, University, North Dakota.

OHIO

University of Cincinnati Library, Burnett Woods Park, Cincinnati, Ohio.
Cleveland Public Library, 325 Superior Avenue, N. E., Cleveland, Ohio.
Case School of Applied Science, Department of Geology and Mineralogy, Cleveland, Ohio.
Ohio State University Library, Columbus, Ohio.
Oberlin College Library, Oberlin, Ohio.

OKLAHOMA

University of Oklahoma Library, Norman, Oklahoma.
Oklahoma Agricultural and Mechanical College Library, Stillwater, Oklahoma.

OREGON

Oregon State Agricultural College Library, Corvallis, Oregon.
PENNSYLVANIA
Lehigh University Library, Bethlehem, Pennsylvania.
Vanadium Corporation of America Library, Bridgeville, Pennsylvania.
Bryn Mawr College Library, Bryn Mawr, Pennsylvania.
Lafayette College Library, Easton, Pennsylvania.
Harbison-Walker Refractories Company, Hays Laboratory, Box 443, Homestead, Pennsylvania.
University of Pittsburgh Library, 310 State Hall, University of Pittsburgh, Pittsburgh, Pennsylvania.

RHODE ISLAND
Rhode Island State College Library, Davis Hall, Kingston, Rhode Island.
Brown University Library, Providence, Rhode Island.

SOUTH DAKOTA
University of South Dakota Library, Vermilion, South Dakota.

TENNESSEE
Vanderbilt University, Department of Geology, Nashville, Tennessee.

TEXAS
North Texas Agricultural College Library, Arlington, Texas.
Library, University of Texas, Serials Acquisition, Austin, Texas.
Agricultural and Mechanical College of Texas Library, College Station, Texas.
Southern Methodist University, Library Department, Dallas, Texas.
Texas College of Mines and Metallurgy Library, El Paso, Texas.

UTAH
Geology Department, University of Utah, Salt Lake City, Utah.
U. S. Bureau of Mines, Care of University of Utah, Salt Lake City, Utah.

VIRGINIA
University of Virginia Library, Charlottesville, Virginia.

WASHINGTON
University of Washington Library, Seattle, Washington.

WEST VIRGINIA
University of West Virginia Library, Morgantown, West Virginia.
FELLOWS, MEMBERS AND SUBSCRIBERS

WISCONSIN

Beloit College Library, Beloit, Wisconsin.
University of Wisconsin Library, Madison, Wisconsin.

WYOMING


CANADA

Library, University of British Columbia, Point Grey, British Columbia, Canada.
Science Library, University of Manitoba, Fort Garry Site, Winnipeg, Manitoba, Canada.
Queen's University Library, The Douglas Library, Kingston, Ontario, Canada.
Geological Survey Library, Department of Mines and Resources, Victoria Memorial Museum, Ottawa, Ontario, Canada.
Library, Department of Mines, Ottawa, Ontario, Canada.
Royal Ontario Museum of Mineralogy, 100 Queen's Park, Toronto 5, Ontario, Canada.
Library, University of Toronto, Toronto, Ontario, Canada.
Ecole Polytechnique, 1430 Rue St. Denis, Montreal, Quebec, Canada.
Library, McGill University, 3459 McTavish Street, Montreal, Quebec, Canada.

U. S. POSSESSIONS

Library, University of Hawaii, Honolulu, Hawaii.
The Chief, Scientific Library Division, P.O. Box 774, Manila, Philippine Islands.

AFRICA

The Librarian, Rhodes University College, Grahamstown, South Africa.
Johannesburg Public Library, Johannesburg, South Africa.
The Librarian, University of the Witwatersrand, P.O. Box 1176, Johannesburg, South Africa.
Librarian, University of Pretoria, Pretoria, South Africa.
The Librarian, Geological Survey Division, Department of Mines, Pretoria, South Africa.
The Director, Geological Survey, Salisbury, Southern Rhodesia, Africa.
University Library, Stellenbosch, South Africa.

ARGENTINA

Acme Agency, Casilla Especial 16, Buenos Aires, Argentina.
Sociedad Cientifica Argentina, Santa Fe 1145, Buenos Aires, Argentina.

AUSTRALIA

The Librarian, University, Perth, Western Australia.
Fisher Library, University of Sydney, Sydney, New South Wales, Australia.
Central Library, University of Melbourne, Carlton N 3, Victoria, Australia.

AUSTRIA

Administrationkanzeli des Naturhistorischen Museums, Vienna, Austria.
Petrographisches Institut, University of Vienna, Vienna, Austria.

BELGIUM

Alumni Club, Foundation Universitaire, 11 Rue d’Egmont, Brussels, Belgium.
Librarie Falk Fils, 22 Rue des Paroissiens, Brussels, Belgium.
W. H. Smith and Son, 71–75 Boulevard Adolphe Max, Brussels, Belgium.
M. le Secretaire General, Revue de Geologie, Laboratorie de Geologie, Universite de Liege, Liege, Belgium.

BRAZIL
Livaria Allema, Frederico Will, F Gabinete de Mineralogia, Caixa Postal 2811, Sao Paulo, Brazil.

BRITISH GUIANA
Commissioner of Lands and Mines, Georgetown, British Guiana.

CHINA
Tsiaotso Engineering College Library, Tsiaotso, Honan, China.
Shui Ching Tai, National Geological Survey of China, Chukiang Road, Nanking, China.
The Library, National Research Institute of Geology, Pei-Chi-Ko, Nanking, China.
The Library No. 355, National Central University, Nanking, China.
The Director, Library, National University of Peiping, Peiping, China.
Tsing Hua University Library, Peiping, China.
Shanghai Science Institute Central Library, 320 Route Ghizi, Shanghai, China.

CZECHOSLOVAKIA
Mineralogical Institute, Charles University, Albertov 6, Prague, Czechoslovakia.

DENMARK
Reitzel, C. A., Lovstraed 7, Copenhagen K, Denmark.

FINLAND
Rautatiekirjakauppa O/Y (Peacock), Koydenpunojankatu 2, Helsingfors, Finland.

FRANCE
Bibliotheque de L'Ecole Nationale, Superiore des Mines, 60 Boulevard St. Michel, Paris 6, France.
International Annual Tables, Dr. N. Thon, Institute de Chemie, 18 Rue Pierre Curie, Paris, 5, France.
Laboratoire de Mineralogie, Universite de Strasbourg, 1 Rue Blessig, Strassburg, France.

GERMANY
J. A. Mayerische Buchhandlung, Bukel 43, Aix-la-Chappelle, Germany.
Bibliothek der Technischen Hochschule, Charlottenburg, Berlin, Germany.
Bucherei d. Reichszentrale fur Wissenschaftliche Berichterstattung, Unter den Linden 38, Berlin N W 7, Germany.
Deutsche Chemische Gesellschaft, Sigismundstrasse 4, Berlin W 35, Germany.
Hirschwaldsche Buchhandlung, Unter den Linden 68, Berlin NW 7, Germany.
Institute fur Mineralogie and Petrographie, Technische Hochschule, Charlottenburg, Berlin, Germany.
Preussische Staats-Bibliothek, Unter den Linden 38, Berlin NW 7, Germany.
Mineralogisches Institut der Universitat, Bonn a Rh., Germany.
Mineralogisches Institut der Universitat, Schuhbrucke 38-39, Breslau I, Germany.
Bibliothek der Technischen Hochschule, Bismarckplatz 18, I, Dresden A, Germany.
Bucherei, Bergakademie, Freiberg, Saxony, Germany.
Mineralogisches Institut der Universitat, Bertholdstrasse, Freiburg, Germany.
FELLOWS, MEMBERS AND SUBSCRIBERS

Ludwig Hantzschel and Co., Göttingen, Germany.
Mineralogisches Institute der Universität, Bibliothek, Göttingen 1, Germany.
Mineralogisch-Geologische Institut d. Technische Hochschule, Welfengarten 1, Hannover 1 W, Germany.
Mineralogisch-Petrographisches Institut der Universität, Heidelberg, Germany.
Frommannsche Buchhandlung (Walter Biedermann), Jena, Germany.
Universität Bibliothek, Kiel, Germany
Mineralogische-Petrographisches Institut der Universität, Steindamm 6, Königsberg, Germany.
Hiersemann, K. W., Königstrasse 29, Leipzig, Germany.
Koehler's Antiquarium, K. F., Taubchenweg 21, Leipzig, Germany.
Library, Mineralogisches Institut, Talstrasse 38, Leipzig, Germany.
Max Weg, Buchhandlung, Inselstrasse 20, Leipzig C 1, Germany.
Moritz Speiss, Buchhandlung, Elisabethstrasse 6, Marburg a. Lahn, Germany.
Bayerische Staats Bibliothek, Ludwigstrasse 23, Munich, Germany.
Mineralogische Staatssammlung, Neuhauserstrasse 51, Munich 2M, Germany.
Mineralogisch-Geologisches Institut der Universität, Wismarschestrasses 8, Rostock, Germany.
Mineralogisch-Petrographisches Institut der Universität Tübingen, Tübingen, Württemberg, Germany.

GREAT BRITAIN

Department of Mineralogy and Petrology, University of Cambridge, Cambridge, England.
Henry Young and Sons, Ltd., 12 South Castle Street, Liverpool, England.
Imperial College of Science and Technology (The Clerk for Supplies), South Kensington, London SW 7, England.
University of Manchester Library, Manchester, England.
The Secretary, The Ceramic Society, North Staffordshire Technical College, Stoke-on-Trent, England.
University College of Swansea, Library, Singleton Park, Swansea, England.
The Manager, W. R. C. C. County Supplies Dept., Cliff Lane, Wakefield, England.
Royal Scottish Museum, Edinburgh, Scotland.
James Thin, 54 South Bridge Street, Edinburgh, Scotland.

HOLLAND

N. V. Boekhandel en Antiquariat, Care of J. L. Beijers, Wed 5, Utrecht, Holland.

INDIA

Karnataka Publishing House, P.O. Basavangudi, Bangalore City, Southern India.
Secretary, Geological Department, University of Calcutta, Senate House, Calcutta, India.
Director, Geological Survey of India, 27 Chowringhee Road, Calcutta, India.
ITALY

Instituto di Mineralogia, R. Universita, Piazza S. Marco, Florence, Italy.
Instituto di Mineralogia, R. Universita, Messina, Italy.
Director, Museo di Storia Naturale, Giardini Pubblici, Milan 13, Italy.
Instituto di Mineralogia, R. Universita di Pisa, Pisa, Italy.
Libreria Internazionale Minerva, Via Pietro da Cortona 1, Rome, Italy.
Rosenberg and Sellier, 14 Via Andrea Doria, Turin, Italy.

JAPAN

Library, Akita-Kozan-Senmon-Gakko (Akita Mining College), Akita, Japan.
Geological Institute, Engineering College, Kyushu Imperial University, Fukuoka, Japan.
Hiroshima Koto Gakko Toshoka, Minami-cho, Hiroshima, Japan.
Chisshitsu-Kobutsu, Rigakubu, Hokkaido Teikoku Daigaku, Sapporo, Japan.
T.D.F., Care of Maruzen Company, Kokubun-Machi, Sendai, Japan.
Komuka Taiwan, Sotokufu Shokusan Kyoku (Government General of Taiwan), Taihoku, Taiwan, Japan.
Library, Government Research Institute, Taiwan-Sotokufu-Chuo-Kenkyusho, Toshoshitsu, Taihoku, Taiwan, Japan.
Taihoku Imperial University Library, Taihoku, Taiwan, Japan.
Geological Institute, College of Science, Tokyo Imperial University, Tokyo, Japan.
Daichi Koto Gakko Toshokan (First High School Library), Komaba, Tokyo, Japan.
Chichitsugaku-Kyoshitsu (College of Agriculture), Tokyo Imperial University, Tokyo, Japan.
Institute of Mineralogy, College of Science, Tokyo Imperial University, Tokyo, Japan.
Library of Institute of Physical and Chemical Research, Komagome, Hongo-ku, Tokyo, Japan.
Asahi Garas Shikenjo, 2553 Ushioda-cho, Tsurumi-ku, Yokohama, Japan.

MANCHURIA

The Chichitsu Chosasho (Geological Institute), South Manchuria Railway Company, Dairen, Manchuria.
Library of the Ryojun College of Engineering, Port Arthur, South Manchuria.
Library of Institute of Scientific Research, Manchoukuo Hsinking, Manchoukuo via Japan.

MEXICO

Academia Nacional de Ciencias Antonio Alzate, Apartado 77-98, Mexico City, D.F., Mexico.
Tobias Chavez, Biblioteca de la Universidad Nacional de Mexico, Calle del Lic. Verdad No. 2, Mexico City, D. F., Mexico.
Sria Economia Nacional Depto. Administrative, Avenue Republica Argentine 12, Mexico City, D. F., Mexico.

NEW ZEALAND

Librarian, Otago University, Dunedin, New Zealand.
FELLOWS, MEMBERS AND SUBSCRIBERS

NORWAY

Bruns, F. (Bokhandel), Trondheim, Norway.
Geologisk Museums Bibliotek, Trondhjemsveien 23, Oslo, Norway.
Library, Norge Geologiske Underskelse, Kronprinsens Gate 6, Oslo, Norway.

POLAND

Gebethner and Wolff, Krakowskie Przedmiescie 15, Filja I w, Warsaw, Poland.
Institut Geologique de l’Etat, n/Ville, Warsaw, Poland.

SWEDEN

A. B. Ph. Lindstedts Universitets Bokhandel, Klostergaten 8 a, Lund, Sweden.
Sveriges Geologiska Undersöknings, Stockholm 50, Sweden.
Mineralogical Department, University of Stockholm, Drottninggatan 118, Stockholm, Sweden.
University of Upsala, Library, Upsala, Sweden.

SWITZERLAND

Petrographes Institut, Technische Hochschule, Sonneggstrasse 5, Zurich, Switzerland.

U.S.S.R.

206 Gorjskij, U.S.S.R.
Biblioteke Im. M. Gorjikogo Pri Len Gos. Universitete W. O. Universitetskaja Nab, Len-
ingrad, U.S.S.R.
Central Geological Library, VO Sredni Prospect 72 B, Leningrad, U.S.S.R.
Glahnoin Biblioteke L.G.I., W.O. 21 Linija 2, Leningrad, U.S.S.R.
Sojun. Sludjainoi Kombinat, Ul. S. Perovskoi 16, Leningrad, U.S.S.R.
Severonikej, Tekhn. Bib.-Ke, Kirovsk, Zh. D. P.O., Monchegorsk, U.S.S.R.
U.S.S.R.
Biblioteke Institutta Prikladnoj Mineralogii, Pisheeskij Per 7, Moscow 17, U.S.S.R.
Moskovsky Geologo-Razvedotschny Institut, Biblioteke, Mozhkovaia II, Moscow, U.S.S.R.
Nautschnoj Biblioteke, Narkomtjazahproma Delovoj Dvor IV, Podjesd, Moscow,
U.S.S.R.
Nigrisoloto im Kosarrewa Biblioteka, Worobjewi Gori 47 A, Moscow 133, U.S.S.R.
Sojusredmetrazvedka, Petrovka 5, Moscow, U.S.S.R.
Trest Solotaraswedka Nikoljskaja Ul, Staropanski, Per 1 5, Moscow 12, U.S.S.R.
Biblioteke Industrialnogo Instituta, Ul. Prosvesenjenija 120, Novocherkassk, U.S.S.R.
Ilmenskij Zapovednik, Akademii Nauk, Miass Tchelijabinskoij, Obl., U.S.S.R.
Sredne Wolshkomu, Instituta Prikladn. Mineralogii, Sowetskaja Ul 135, Samara, U.S.S.R.
Biblioteke Uraljsk Nautschnu Issled Instituta Geologii Raswedok i Mineraljn Sirja Sibirskij Prosp. d 39, Sverdlovsk, U.S.S.R.
Upol. Narkomvneshtorg Uz. SSR Komitet Nauk, Zhu Kovskaja 46, Tashkent, U.S.S.R.
Gruzinskoje Otdelenje, Vsesojusn. Instituta, Mineralnogo Syrja, Lermontvoskaja Ul. 10, Tbilisi, U.S.S.R.