

GLACIOLOGICAL LITERATURE

THIS selected list of glaciological literature has been prepared by J. W. Glen with the assistance of T. H. Ellison, W. B. Harland, Miss D. M. Johnson, and the Staff of the Scott Polar Research Institute. Its field is the scientific study of snow and ice and of their effects on the earth; for the literature on polar expeditions, and also on the "applied" aspects of glaciology, such as snow-ploughs, readers should consult the bibliographies in each issue of the *Polar Record*. For Russian material the system of transliteration used is that agreed by the U.S. Board on Geographic Names and the Permanent Committee on Geographical Names for British Official Use in 1947. Readers can greatly assist by sending reprints of their publications to the Society, or by informing Dr. Glen of publications of glaciological interest.

GENERAL GLACIOLOGY

- APOLLONIO, S. The Devon Island expedition 1960-64. Preliminary report for September 1961 to September 1962. *Arctic*, Vol. 15, No. 4, 1962, p. 317-21.
- FITCH, F. J. The University of London 1961 Beerenburg expedition. *Nature*, Vol. 194, No. 4829, 1962, p. 624-26. [Geology and glaciology.]
- HATTERSLEY-SMITH, G. Glaciology. *Canadian Geophysical Bulletin*, Vol. 14, 1961, p. 91-104. [Summary of glaciological work carried out by Canadian organizations in 1961.]

GLACIOLOGICAL INSTRUMENTS AND METHODS

- BUTYAGIN, I. P. Ledoreznaya mashina dlya ustroystva prorezy v ledyanom pokrovye i prigotovleniya obraztsov [A machine for making longitudinal cuts in an ice cover and for preparing samples]. *Trudy Transportno-Energeticheskogo Instituta* [Transactions of the Transport and Power Institute], 1961, Vyp. 11, p. 107-10. [Power-driven saw for cutting samples from floating ice covers.]
- PHILBERTH, K. Remarque sur une sonde thermique pour mesurer la température des couches de glace. *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences* (Paris), Tom. 255, No. 22, 1962, p. 3022-24. [Modification of self-drilling temperature probe to obtain more rapid readings.]

PHYSICS OF ICE

- BARNES, G. T., and SÄNGER, R. An investigation into the mechanism of ice crystal nucleation by proton spin resonance spectroscopy. *Zeitschrift für angewandte Mathematik und Physik*, Bd. 12, Ht. 2, 1961, p. 159-64. [Method indicating liquid or solid nature of adsorbed water layer on AgI and CuO.]
- BRILL, R. The structure of ice. *Angewandte Chemie International Edition in English*, Vol. 1, No. 11, 1962, p. 563-67. [Review of crystallography of ice and the formation of mixed crystals with NH₄F.]
- BUTYAGIN, I. P. Prochnost' ledyanogo pokrova v ledovykh nagruzkakh na gidrosooruzheniya [The strength of the ice cover under ice loading at hydrotechnic installations]. *Trudy Transportno-Energeticheskogo Instituta* [Transactions of the Transport and Power Institute], 1961, Vyp. 11, p. 25-48. [Laboratory tests on compressive, bending and shear strength.]
- DANFORD, M. D., and LEVY, H. A. The structure of water at room temperature. *Journal of the American Chemical Society*, Vol. 84, No. 20, 1962, p. 3965-66. [X-ray diffraction study indicating ice-like structure of water.]
- GISLER, W., and others. Untersuchung des Neutronenstreuquerschnittes von schweren Eis in der Umgebung der Bragg'schen Grenzwellenlänge, von W. Gissler, C. Reinsch, T. Springer, W. Wiedemann. *Zeitschrift für Kristallographie*, Bd. 116, Ht. 3-6, 1961, p. 328-44. [Study of neutron scattering from D₂O gives results consistent with Pauling's model for ice structure.]
- HEAD, R. B. Ice nucleation by α -phenazine. *Nature*, Vol. 196, No. 4856, 1962, p. 736-38. [Compound comparable with AgI as ice nucleator.]
- HEAD, R. B. Ice nucleation by some cyclic compounds. *Physics and Chemistry of Solids*, Vol. 23, October 1962, p. 1371-78. [Discussion of nature of organic compounds which act as ice nuclei.]
- JELLINEK, H. H. G. Ice adhesion. *Canadian Journal of Physics*, Vol. 40, No. 10, 1962, p. 1294-1309. [Results of shear tests on ice—stainless steel and ice—fused quartz interfaces.]
- JELLINEK, H. H. G. Plastic deformation of thick-walled snow-ice cylinders under hydrostatic pressure. *Canadian Journal of Physics*, Vol. 40, No. 10, 1962, p. 1310-18. [Results of tests on hollow cylinders subjected to external pressure.]
- KOPTYEV, A. P., and PYATENKOV, B. A. O pogloshchenii i proniknovenii solnechnoy radiatsii v sneg i led v Arktiki [Absorption and penetration of solar radiation in snow and ice in the Arctic]. *Problemy Arktiki i Antarktiki*, Vyp. 10, 1962, p. 71-76. [Measurements at Mys Sterlegova, 1949-50, and at drifting station SP-6, 1958-59.]
- MADONNA, L. A., and others. Low temperature cloud chamber studies on water vapour, by L. A. Madonna, C. M. Sciuilli, L. N. Canjar, G. M. Pound. *Proceedings of the Physical Society* (London), Vol. 78, No. 505, 1961, p. 1218-22. [Study of homogeneous nucleation of water vapour from 0° C. to -75° C.]
- POWER, B. A., and POWER, R. F. Some amino-acids as ice nucleators. *Nature*, Vol. 194, No. 4834, 1962, p. 1170-71. [Experiments show four of these organic compounds to be active above -10° C.]
- RATCLIFFE, E. H. The thermal conductivity of ice: new data on the temperature coefficient. *Philosophical Magazine*, Eighth Ser., Vol. 7, No. 79, 1962, p. 1197-1203. [Results from 0° C. to -180° C.]
- WILLIAMS, G. P. Evaporation from water, snow and ice. *National Research Council of Canada. Associate Committee on Geodesy and Geophysics. Proceedings of Hydrology Symposium No. 2, Toronto, March 1961*, [1962], p. 31-54. [Review, emphasizing differences between water, snow and ice.]
- ZAJAC, A. Degree of perfection of ice crystals determined from primary and secondary X-ray extinctions. *Journal of Applied Physics*, Vol. 33, No. 6, 1962, p. 2059-61. [Experiments on crystals from Mendenhall Glacier, Alaska, to deduce their sub-grain structure and misorientation.]

- AKADEMIYA NAUK KAZAKHKOY SSR. OTDEL GEOGRAFI. *Mezhdunarodnyy Geofizicheskiy God. Glyatsiologicheskoye issledovaniya v period MGG: Zailiyskiy i Dzhungarskiy Alatau* [International Geophysical Year. Glaciological research in the period of the I.G.Y.: Zailiyskiy and Dzhungarskiy Alatau]. Vyp. 2. Alma-Ata, Izdatel'stvo Akademii Nauk Kazakhskoy SSR [Publishing House of the Academy of Sciences of the Kazakh SSR], 1962. 209 p. [Second volume of papers on results of I.G.Y. studies in Zailiyskiy and Dzhungarskiy Alatau, Kazakhstan.]
- AVSYUK, G. A. Iskusstvennoye usileniye tayaniya gornyykh lednikov s tsel'yu uvelicheniya stoka rek sredney Azii [Artificial intensification of the melting of mountain glaciers to increase the flow volume of central Asian rivers]. *Izvestiya Akademii Nauk SSSR. Seriya Geografii* [News of the Academy of Sciences of the U.S.S.R. Geographical Series], 1962, No. 5, p. 83-89. [Soviet and Chinese experiments reported. Future research outlined.]
- BEHRENDT, J. C., and others. Results of a geophysical traverse from Mount Murphy to the Hudson Mountains, Antarctica, by J. C. Behrendt, T. S. Laudon and R. J. Wold. *Journal of Geophysical Research*, Vol. 67, No. 10, 1962, p. 3973-80. [Results on ice depth and bedrock geology, Marie Byrd Land.]
- CH'UI, CHIH-CHIU. Mu-shih-t'a-ko—Kung-ko-er ping ch'uan ti mou hsüeh t'e tien chi ch'i kai fa li yung ti t'iao chien [Some characteristics and conditions for utilization and development of the Muztagh-Kungur glaciers]. *Ti-li Hsüeh-pao* [Acta Geographica Sinica], Vol. 26, No. 1, 1960, p. 35-44. [Description of glaciers of Muztagh and Kungur mountains and of their possible use for irrigation.]
- DAVEY, A. Changes in Blue Glacier, Mount Olympus, Washington. *Ohio State University. Institute of Polar Studies. Report*, No. 1, 1962, [i], 12 p. (RF Project 1278.) [Preliminary report, including maps of changes 1939-52 and 1952-57, with data.]
- FRISTRUP, B. Overvintringsstationer på indlandsisen. *Grønland*, 1962, No. 7, p. 255-65; No. 8, p. 298-304; No. 9, p. 321-34. [Review of expeditions which have wintered on the Greenland Ice Sheet.]
- GEORGE, D. J. The Gornergletscher glaciological expedition, 1959-60. *Weather*, Vol. 17, No. 5, 1962, p. 162-67. [Work during May-June 1960.]
- GUNN, B. M., and WARREN, G. Geology. 4. Geology of Victoria Land between the Mawson and Mulock glaciers, Antarctica. *Trans-Antarctic Expedition, 1955-1958. Scientific Reports*, No. 11, 1962, 157 p. [Includes chapter on glaciology. Also published as *Geological Survey of New Zealand. Bulletin* 71.]
- KARTASHOV, S. N. *Fiziko-mekhanicheskiye svoystva i protsessy formirovaniya snezhno-fimovogo pokrova vostochnoy Antarktidi* [Physical and mechanical properties and processes of formation of the snow and firn cover of eastern Antarctica]. Moscow, Izdatel'stvo Akademii Nauk SSSR [Publishing House of the Academy of Sciences of the U.S.S.R.], 1962. 107p. [Results of field and laboratory work during Second Soviet Continental Expedition to Antarctica, 1956-58.]
- KIZAKI, K. Icefabric studies on Hamna Ice Fall and Honhörbrygga Glacier, Antarctica. *Antarctic Record*, No. 16, 1962, p. 54-74. [In English with Japanese abstract.]
- KNIZHNIKOV, YU. F. Izmenyayetsya li skorost' dvizheniya lednika na protyazhenii sutok [Does the rate of flow of a glacier change in the course of a day]? *Vestnik Moskovskogo Universiteta. Seriya 5. Geografiya* [Messenger of Moscow University. Series 5. Geography], Tom 16, No. 5, 1961, p. 71-72. [Hourly measurements on the Irik glacier (Caucasus) show no change in rate.]
- KOPANEV, I. D. O roli ispareniya v Antarktide [The role of evaporation in Antarctica]. *Informatsionnyy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii*, No. 33, 1962, p. 32-34.
- KOTLYAKOV, V. M. Pitaniye shel'fovyykh lednikov Antarktidi i nekotoryye problemy ikh proishkozhdeniya [Nourishment of the ice shelves of Antarctica, and some problems of their origin]. (In Akademiiya Nauk SSSR. Institut Geografii. Mezhdovedomstvennyy Komitet po Provedeniyu MGG. *Issledovaniya lednikov i lednikovyykh rayonov* [Investigations of glaciers and glacierized regions]. Moscow, Izdatel'stvo Akademii Nauk SSSR [Publishing House of the Academy of Sciences of the U.S.S.R.], Vyp. 1, 1961, p. 5-22.) [General discussion on basis of Soviet and other I.G.Y. results.]
- KRUCHININ, YU. A. Izucheniyе stratigrafii verkhnikh sloey snezhno-fimovoy tolshchi shel'fovogo lednika Lazareva [Investigation of the stratigraphy of the upper layers of the snow-firn cover of the Lazarev ice shelf]. *Informatsionnyy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii* [Information Bulletin of the Soviet Antarctic Expedition], No. 32, 1962, p. 19-24. [Results from pits sunk in 1959.]
- KRUCHININ, YU. A. Mikrorel'yef snezhnoy poverkhnosti shel'fovogo lednika Lazareva [Microrelief of the snow surface of the Lazarev ice shelf]. *Informatsionnyy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii*, No. 33, 1962, p. 27-31. [Study of sastrugi in Dronning Maud Land.]
- LISTER, H. Heat and mass balance at the surface of the Ward Hunt Ice Shelf, 1960. *Arctic Institute of North America. Research Paper* No. 19, 1962, viii, 54 p. [Results of micrometeorological study of heat balance and ablation.]
- LOEWE, F. Beiträge zum Massenhaushalt des antarktischen Inlandeises. *Petermanns Geographische Mitteilungen*, Jahrg. 105, Quartalsheft 4, 1961, p. 269-74. [Observations on mass balance of Antarctic ice cap. Mass budget shows net gain.]
- LOEWE, F. Fortschritte in der physikalisch-geographischen Kenntnis der Antarktis. *Erdkunde*, Bd. 15, Ht. 2, 1961, p. 81-92. [Review of current state of knowledge of Antarctica.]
- LOEWE, F. On the mass economy of the interior of the Antarctic ice cap. *Journal of Geophysical Research*, Vol. 67, No. 13, 1962, p. 5171-77. [Discussion of mass balance of inner parts of Antarctic Ice Sheet.]
- MARCINKIEWICZ, A. Die zahlenmäßige Erfassung des Gletscherrückganges während der Periode 1936-1958 an 2 Westspitzbergen-Gletschern. *Bulletin de l'Académie Polonaise des Sciences. Série des Sciences Géologiques et Géographiques*, Vol. 9, No. 4, 1961, p. 233-37. [Retreat and variations in thickness of two glaciers in Vestspitsbergen.]
- MERCER, J. H. Glacier variations in the Andes. *Glaciological Notes*, No. 12, 1962, p. 9-31. [Review of recent evidence and discussion of reasons for variations.]
- MERCER, J. H. Glacier variations in New Zealand. *Glaciological Notes*, No. 12, 1962, p. 33-44. [Review of knowledge.]

- NAKANO, T., and others. Some information on the glaciers and geology in the vicinity of Ongul Island, by T. Nakano, T. Kaji, Y. Harada. *Antarctic Record*, No. 10, 1960, p. 32-36. [Study based on aerial photographs.]
- PHILBERTH, K. Écoulement de la glace groenlandaise. *Revue de Géomorphologie Dynamique*, An. 13, Nos. 1-3, 1962, p. 18-25. [Review of state of knowledge on movement of Greenland Ice Sheet and suggestion for measuring temperature of lower layers.]
- RICKER, K. Polar ice-dammed lakes. *Canadian Alpine Journal*, Vol. 45, 1962, p. 149-51. [Various types on Axel Heiberg Island, 1960.]
- RIST, S. Rannsóknir á Vatnajökli 1960. Hitamælingar, snjómælingar o.fl. *Jökull*, ÁR 11, 1961, p. 1-11. [Investigations on Vatnajökull in 1960. Ice temperature, topographic and gravimetric surveys, 1959-60 winter accumulation, percolation of melt water, ablation 1960, snow stakes. English summary.]
- ROBIN, G. DE Q. The ice of the Antarctic. *Scientific American*, Vol. 207, No. 3, 1962, p. 132-46. [Techniques of measuring thickness of ice sheet; problems of accumulation and ablation.]
- SCHMIDT, R. A. Rate of spherule deposition on the Antarctic ice cap. *Journal of Geophysical Research*, Vol. 68, No. 2, 1963, p. 601-02. [Analysis of results.]
- TANGBORN, W. V. Glaciological investigations on South Cascade Glacier. *Mountaineer*, Vol. 55, No. 4, 1962, p. 24-32. [Description of methods employed in studying budget of this glacier.]
- TSOMAYA, V. SH. K voprosu o dvizhenii lednikov Kavkaza [Glacier movement in the Caucasus]. *Trudy Tbilisskogo Nauchno-Issledovatel'skogo Gidrometeorologicheskogo Instituta* [Transactions of the Tbilisi Research Institute of Hydrology and Meteorology], Vyp. 7, 1960, p. 133-40. [Studies on two glaciers of variation of flow on surface of glacier and on seasonal changes in velocity.]
- TSUKERNIK, V. B. Novyye dannyye o podlednom rel'yefe tsentral'nogo sektora vostochnoy Antarktity po seismo gravimetricheskim materialam [New data on the sub-ice relief of the central sector of eastern Antarctica from seismic and gravimetric materials]. *Informatsionnyy Byulleten' Sovetskoy Antarkticheskoy Ekspeditsii*, No. 32, 1962, p. 10-14. [Region between Mirny and lat. 80° S.]
- TSYKIN, YE. N. Prikhod veshchestva v firnovykh zonakh lednikov (metod izucheniya s pomoshch'yu termozondirovaniya) [Mass accumulation in firn zones of glaciers (method of study with the aid of thermosounding)]. *Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda. Glyatsiologiya. IX Razdel Programmy MGG* [Results of Studies on the Programme of the International Geophysical Year. Glaciology. Section IX of the I.G.Y. Programme], No. 8, 1962, 95 p. [Method of calculating mass increase from temperatures. Results compared with those by other methods for some Tien Shan glaciers.]
- ZABIROV, R. D., and KNIZHNIKOV, YU. F. Fototeodolitnaya s'ëmka lednikov Tyan'-Shanya v period MGG [Phototheodolitic survey of the Tien Shan glaciers during the I.G.Y.]. *Frunze, Izdatel'stvo Akademii Nauk Kirgizskoy SSR* [Publishing House of the Academy of Sciences of the Kirgiz S.S.R.], 1962. 100 p. [Results for 24 glaciers.]

ICEBERGS. SEA, RIVER AND LAKE ICE

- KARWOWSKI, J. Influence of waves on the movements of ice floes and icebergs. *Bulletin de l'Académie Polonaise des Sciences. Série des Sciences Techniques*, Vol. 10, No. 7, 1962, p. 437-40. [Laboratory model experiments.]
- MACPHERSON, J. D. Some under-ice ambient noise measurements. *Journal of the Acoustical Society of America*, Vol. 34, No. 8, 1962, p. 1149-50. [Measurements of acoustic noise below sea ice.]
- MEGURO, H. Plankton ice in the Antarctic Ocean. *Antarctic Record*, No. 14, 1962, p. 72-79. [Brown sea ice analysed and process of formation discussed.]
- NAZAROV, V. S. L'dy antarkticheskikh vod [Ice of Antarctic waters]. *Rezultaty Issledovaniy po Programme Mezhdunarodnogo Geofizicheskogo Goda. Okeanologiya. X Razdel Programmy MGG* [Results of Studies on the Programme of the International Geophysical Year. Oceanography. Section X of the I.G.Y. Programme], No. 6, 1962, 79 p. [Summary of distribution and behaviour of floating ice in Southern Ocean, based on data 1773-1960.]
- SERIKOV, M. I. Izucheniye fiziko-mekhanicheskikh svoystv morskikh l'dov [Study of the physical and mechanical properties of sea ice]. *Trudy Sovetskoy Antarkticheskoy Ekspeditsii* [Transactions of the Soviet Antarctic Expedition], Tom 20, 1962, p. 155-64. [Laboratory studies aboard *Ob'* during cruise in Southern Ocean, 1958-59.]
- SMETANNIKOVA, A. V. Teploobmen mezhdru okeanom i atmosferoy v Arktike v zimniy period [Heat exchange between ocean and atmosphere in the Arctic in the winter period]. *Trudy Arkticheskogo i Antarkticheskogo Nauchno-Issledovatel'skogo Instituta* [Transactions of the Arctic and Antarctic Research Institute], Tom 229, 1961, p. 175-201. [Methods of calculating heat exchange through ice and snow covers.]
- SUZUKI, Y. Nankyoku chiki kansoku kaihyō chōsa hōkoku [Report on sea ice observations of the Japanese Antarctic research expedition 4, 1959-60, with the *Soya*]. *Antarctic Record*, No. 13, 1961, p. 29-45.

GLACIAL GEOLOGY

- KELLER, W. D., and REESMAN, A. L. Glacial milks and their laboratory-simulated counterparts. *Geological Society of America Bulletin*, Vol. 74, No. 1, 1963, p. 61-76. [Laboratory study of water from glacier outlet streams.]
- LIESTOL, O. Discovery of a tree stump in front of Engabreen, Svartisen. *Norsk Polarinstittutt. Årbok*, 1960 [pub. 1962], p. 64-65. [Age of *Betula odorata* stump indicates glacier advance about A.D. 1600, Nordland, north Norway.]
- LUNDQVIST, G. Beskrivning till karta över landisens avsmältning och högsta kustlinjen i Sverige. *Sveriges Geologiska Undersökning, Avhandlingar och Uppsatser*, Ser. Ba, No. 18, 1961, 148 p. [Text and description to accompany map, published simultaneously in three sheets on scale of 1:1,000,000, showing outline of deglaciation and highest shore line in Sweden. English summary.]
- MÖLLER, H. Annuela och interannuela ändmoräner. *Geologiska Föreningens i Stockholm Förhandlingar*, Bd. 84, Ht. 2, No. 509, 1962, p. 134-43. [Investigations in and around Stockholm of presumed annual and inter-annual end moraines thought to have been built up at calving ice front. English summary.]

NICHOLS, R. L. Geologic features demonstrating aridity of McMurdo Sound area, Antarctica. *American Journal of Science*, Vol. 261, No. 1, 1963, p. 20-31.

FROST ACTION ON ROCKS AND SOIL. FROZEN GROUND. PERMAFROST

- ANANYAN, A. A. Mekhanizm l'dovydeniya v merzlykh gruntakh v protsesse elektroosmosa [The mechanism of ice formation in frozen ground during electro-osmosis]. *Vestnik Moskovskogo Universiteta. Seriya Matematiki, Mekhaniki, Astronomii, Fiziki, Khimii* [Messenger of Moscow University. Series of Mathematics, Mechanics, Astronomy, Physics, Chemistry], Tom 14, No. 4, 1959, p. 149-51. [Study of ice formation in frozen ground subjected to an electric field.]
- CAATHY, T. L., and TOWNSEND, D. L. Pore size and field frost performance of soils. *Bulletin. [U.S.] Highway Research Board*, No. 331, 1962, p. 67-80. [Importance of pore-size distribution in determining frost susceptibility of soils.]
- GRAVE, N. A., ed. *Mnogoletnemerzlyye porody i soputstvuyushchiye im yavleniya na territorii Yakutskoy ASSR* [Long frozen rocks and associated phenomena on the territory of Yakutskaya A.S.S.R.]. Moscow, Izdatel'stvo Akademii Nauk SSSR [Publishing House of the Academy of Sciences of the U.S.S.R.], 1962. 128 p. [Collected papers on permafrost phenomena.]
- HAAAS, W. M. Frost action theories compared with field observations. *Bulletin. [U.S.] Highway Research Board*, No. 331, 1962, p. 81-97. [Discussion, p. 95-97.]
- HAMELIN, L. E. Périglaciaire du Canada: idées nouvelles et perspectives globales. *Cahiers de Géographie de Québec*, 5c An., No. 10, 1961, p. 141-203. [Survey of periglacial studies and conditions. Includes glossary of new terms and English abstract.]
- IVANOVA, T. F. Geokriologicheskoye rayonirovaniye territorii Yevropeyskogo severa [Geocryological zonation of the northern European territory [of the U.S.S.R.]]. *Trudy Severnogo Otdeleniya Instituta Merzlotovedeniya* [Transactions of the Northern Section of the Institute of Frozen Ground Study], Vyp. 2, 1962, p. 13-17.
- JUMIKIS, A. R. Experimental study on soil moisture transfer in the film phase upon freezing. *Bulletin. [U.S.] Highway Research Board*, No. 331, 1962, p. 21-27. [Measurements of streaming potentials and amount of moisture transferred during freezing of various soils.]
- JUMIKIS, A. R. Vapor diffusion in freezing soil systems of very large porosities. *Bulletin. [U.S.] Highway Research Board*, No. 331, 1962, p. 28-45. [Experimental results on movement of water vapour during soil freezing.]
- LACHENBRUCH, A. H. Mechanics of thermal contraction cracks and ice-wedge polygons in permafrost. *Geological Society of America. Special Papers*, No. 70, 1962, p. 1-69. [Theoretical study of mechanics of formation of cracks in permafrost.]
- MÜLLER, F. Analysis of some stratigraphic observations and radiocarbon dates from two pingos in the Mackenzie Delta area, N.W.T. *Arctic*, Vol. 15, No. 4, 1962, p. 278-88.
- SERPOLAY, R., and TOYE, M.-J. Reproduction en laboratoire du phénomène naturel de formation d'aiguilles de glace à la surface de sols nus et humides. *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences (Paris)*, Tom. 255, No. 19, 1962, p. 2465-67. [Laboratory reproduction of conditions necessary for forming ice crystals on a soil surface.]

METEOROLOGICAL AND CLIMATOLOGICAL GLACIOLOGY

- CIGNA, A. A. Ricerche di meteorologia ipogea nel Gruppo delle Grigne (Lombardia). *Atti della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale in Milano*, Vol. 99, Fasc. 1, 1960, p. 87-104. [Temperature measurements and regimes in a series of potholes in the Italian Alps to the east of Lake Como, some of which contain snow throughout the summer and some of which contain permanent ice. Studies of rate of ablation in some caves and of effect of snow and ice upon circulation in the caves.]
- FACY, L. Conditions de formation de la grêle déduites du rapport deutérium/hydrogène. *Geofisica e Meteorologia*, Vol. 10, Nos. 1-2, 1962, p. 1-5. [Suggested method using deuterium: hydrogen ratio for determining hail-stone trajectories.]
- HANSON, K. J. Some aspects of the thermal energy exchange on the South Polar snow field and Arctic ice pack. *Monthly Weather Review*, Vol. 89, No. 5, 1961, p. 173-77. [Radiation studies at South Pole and on a floating station in Arctic Ocean.]
- LIST, R. Hail test tunnel. *Weather*, Vol. 17, No. 10, 1962, p. 317-19. [Description of this piece of equipment and of research done with it.]
- LIST, R. Über einen Einfluss des Ag.] auf den atmosphärischen Vereisungsprozess. *Zeitschrift für angewandte Mathematik und Physik*, Bd. 12, Ht. 5, 1961, p. 474-76. [Study using hail tunnel.]

SNOW

- BELLAIR, P., and POISSON, A. La chute de neige colorée du 16 avril 1962 dans les Alpes. *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences (Paris)*, Tom. 255, No. 20, 1962, p. 2626-28. [Analysis of this coloured snow showed it to be highly radioactive. Suggests origin in nuclear explosion.]
- HEINE, A. J. Snow structure at Mount Ruapehu. *New Zealand Journal of Geology and Geophysics*, Vol. 5, No. 3, 1962, p. 375-83. [Measurements on New Zealand ski fields give densities more like those in Antarctic than in the Alps.]
- HIGUCHI, K. A case study of snowfall from clouds under subsidence inversion. *Journal of the Meteorological Society of Japan*, Ser. 2, Vol. 40, No. 2, 1962, p. 65-72. [Study of snow crystal forms and correlation with conditions of formation.]
- KOPP, M. Conductivité électrique de la neige, au courant continu. *Zeitschrift für angewandte Mathematik und Physik*, Bd. 13, Ht. 5, 1962, p. 431-41. [Measurements for various temperatures and densities and interpretation of results.]

- MAGONO, C. Kishōgaku teki na yuki no keshō no bunrui [Meteorological classification of snow crystals]. *Septyō*, Vol. 24, No. 2, 1962, p. 1-5. [Elaboration of Nakaya's classification.]
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