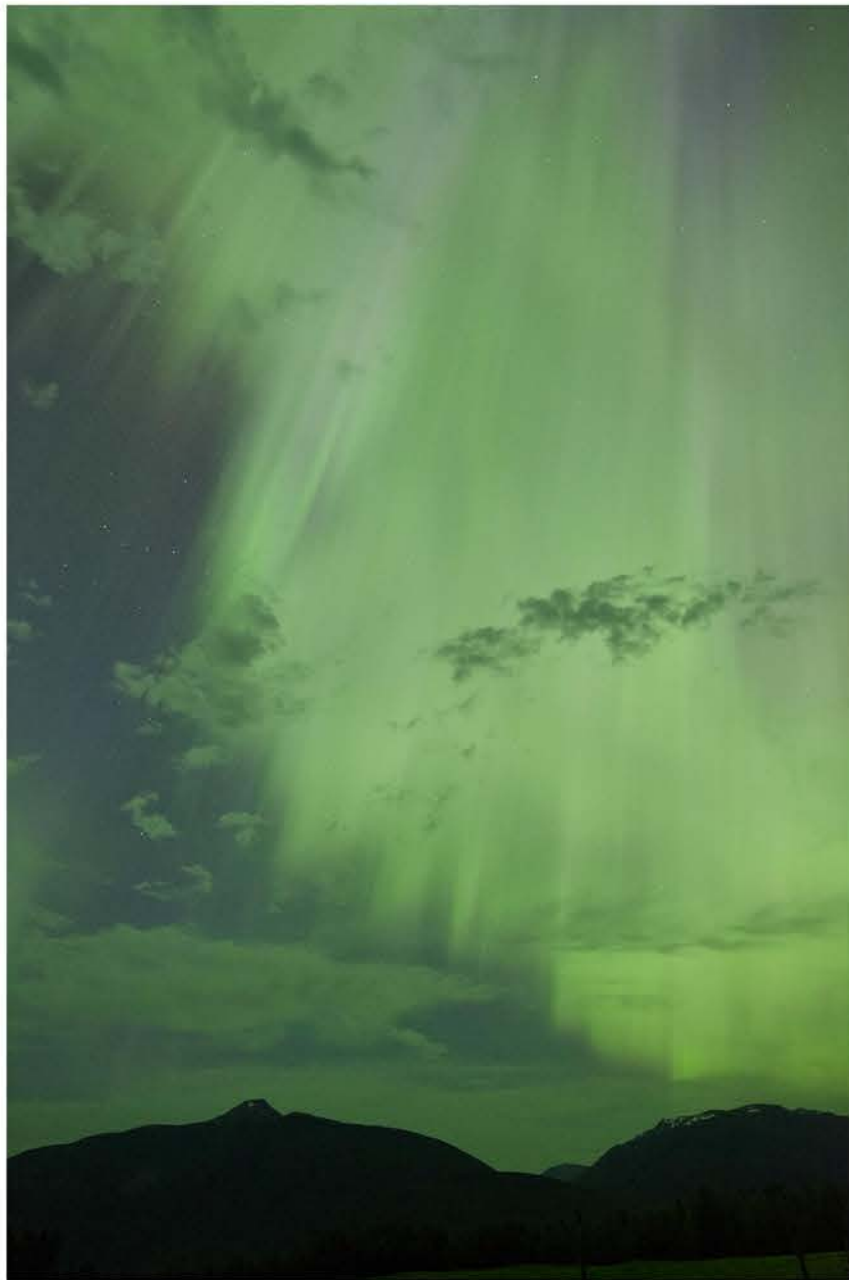


# Gordon Merritt Shrum 1896-1985

Gordon Shrum was born in Smithville Ontario, educated at the University of Toronto, and was a gunner at Vimy Ridge. He returned to UofT to earn his doctorate, and joined the physics faculty at UBC in 1925. He was department head from 1937 to 1961, leaving to head BC Electric (later BC Hydro). He was the first chancellor of Simon Fraser University 1963-1968.

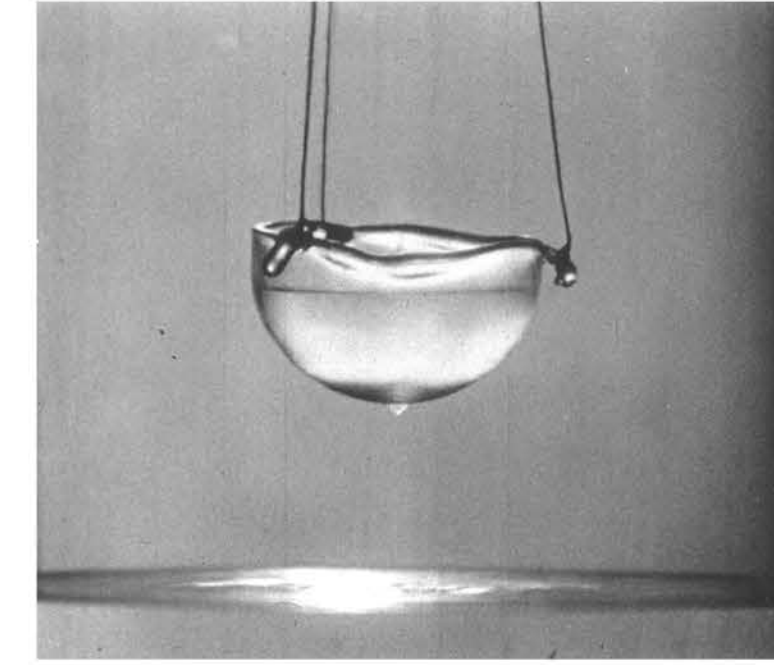
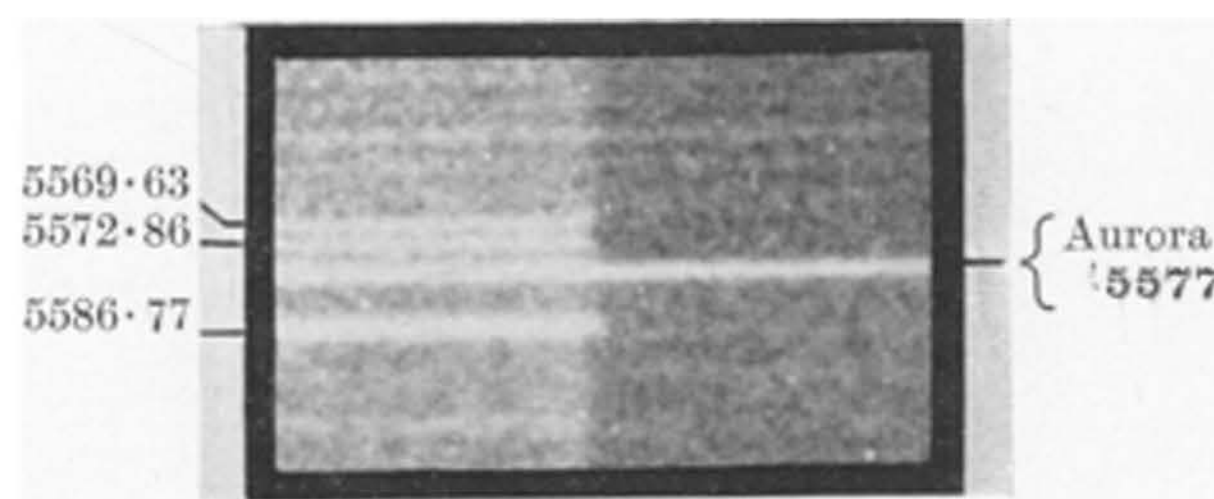
## Early Years at UofT

As a graduate student at the University of Toronto in 1923, Gordon Shrum was the first to replicate Kamerlingh-Onnes' Nobel-Prize winning feat of liquefying helium.



Green Aurora Borealis over McBride BC.  
Photo by Matthew Wheeler

After getting his Ph.D. he worked on discovering the origin of the aurora green light. The first paragraph of the paper published by his supervisor, John McLennan, in Nature, stated: "DR. SHRUM and I have found that the line  $\lambda = 5577$  Å-ströms, which we think is identical with the auroral green line, can be obtained with a mixture of oxygen and helium (with the latter greatly in excess), just as intense at room temperatures with a suitable pressure as when the discharge tube is surrounded with liquid air. Moreover, the results of our experiments strongly indicate that this spectral line has its origin in oxygen."



Liquid helium. Photo by Alfred Leitner, 1963. Wikimedia Commons.

*On the Origin of the Auroral Green Line 5577 Å, and other Spectra Associated with the Aurora Borealis.*  
By J. C. McLENNAN, F.R.S., Professor of Physics, and G. M. SHRUM, Ph.D.,  
University of Toronto.  
(Received June 15, 1925.)

Paper published in the Proceedings of the Royal Society A on July 1st 1925. The spectrum on the left was published in that paper to show the spectrum they found and the corresponding wavelength.

## UBC Physics Department

As head (1938-1961) Gordon Shrum set out to build a first-class department. He trawled the laboratories of Europe, Canada and the USA for promising young talent. The Europeans were so numerous they were referred to as "Shrum's Foreign Legion".

### Shrum's Foreign Legion

BARRIE, Robert, B.Sc., Ph.D. (Glasgow), Professor.  
BARNARD, A. J., B.Sc., M.Sc. (Rhodes, S.A.), Ph.D. (Glasgow).  
CURZON, F. L., B.Sc., A.R.C.S., D.I.C., Ph.D. (London).  
DE SOBRINO, L., M.Sc., Sc.D. (M.I.T.).  
HOWARD, Roger, B.Sc., Ph.D. (Nottingham).  
KAEMPFER, Friedrich A., Dipl. Ing., Dr. Rer. Nat. (Göttingen), Professor.  
OPECHOWSKI, W., Mag. Fil. (Warsaw). F.R.S.C., Professor.  
PICKARD, Gordon L., M.B.E., M.A., D.Phil (Oxon.), Professor.  
RANSTALL, P., B.Sc., Ph.D. (Manchester).  
WARREN, J.B., B.Sc, D.I.C, Ph.D (London). F. Inst. P., F.R.S.C., Professor.  
WHITE, B. L., B.Sc., (New Zealand), D.I.C., Ph.D (London).  
WILLIAMS, D. L., B.Sc. (North Whales), Ph.D. (Cantab.).

### Shrum's Canadian Boys

BLOOM, M., M.Sc. (McGill), Ph.D. (Illinois), Professor.  
ERDMAN, K. L., B.A., M.Sc (Alta.), Ph.D. (Brit. Col.).  
GRIFFITHS, G. M., B.A.Sc. (Toronto), M.A., Ph.D. (Brit. Col.), Professor.  
MANN, Kenneth C., O.B.E., B.A. (Sask.) M.A., Ph.D. (Toronto), Professor.  
VOLKOFF, George M., M.B.E., M.A. (Brit. Col.), Ph.D. (Calif.), D.Sc. (Brit. Col.), F.R.S.C., Professor and Head of the Department.

Shrum's hires that were Members of the Physics Department faculty list 1964-65

David Williams (department head 1982 - 1987) recalls: "...he interviewed me in London in 1959-60 and offered me a PDF [postdoctoral fellowship] from his own funds if I didn't win the NRC [National Research Council] PDF so he certainly was an influence in my choosing UBC. He told me "If you want to come out just to go gallivanting around North America, forget it; but if you want to work, I'll back you to the hilt!". We shook hands and that was our deal - but he didn't mention that he was retiring in a year!". Gordon Shrum was a one-man search and hiring committee.



Gordon Shrum and John McLean at C.O.T.C parade in 1957. University of British Columbia Archives.

## UBC at large

- \* Head and Colonel of the Canadian Officers' Training Corps (C.O.T.C.) (1937 -1946)
- \* Dean of Graduate Studies (1957-1961)
- \* Head of the Department of Extensions (~1937-1953)



The Shrum Lane in the Wesbrook Village commemorating Gordon Shrum.

## BC Hydro

Gordon Shrum was a central figure in electricity generation in British Columbia from 1958-1972 either as chairman of Royal Commission to investigate the BC Power Commission and later as head of BC Electric (which became BC Hydro). During his tenure, the Peace River hydro project was designed, built and commissioned. Now called the G.M. Shrum Generating Station on the Bennett Dam, the installation generates more than 40% of the electrical power in British Columbia.



One of 10 turbines of the G.M. Shrum Generating Station



The Peace River Gordon Shrum Generating Station



July 31, 1964: Premier W.A.C. Bennett, Gordon Shrum and Highways Minister Phil Gaglardi at the Bennett Dam.

### References:

Allen Specht, interview with Gordon Shrum (1973), UBC Archives, <[http://www.library.ubc.ca/archives/military/AT\\_179.pdf](http://www.library.ubc.ca/archives/military/AT_179.pdf)>.  
Peter Stursberg and Gordon Shrum, "Gordon Shrum: An Autobiography with Peter Stursberg", UBC Press (Vancouver) 1986.

Poster prepared by Muriel Dunn, Theresa Liao and Chris Waltham  
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