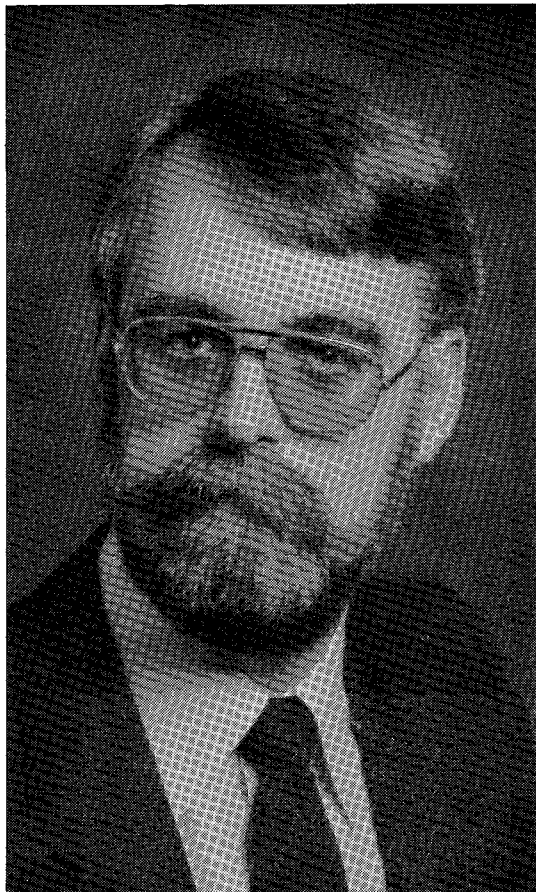


THE HAWLEY MEDAL FOR 1984 TO FRANK C. HAWTHORNE

Our Association is very pleased to award the 1984 Hawley Medal to one of our most active and internationally respected research mineralogists, Frank Hawthorne. Frank is a crystallochemical mineralogist of widespread mineralogical interests, but the award we are presenting to him today is for his paper on the most chemically complex of all mineral groups, the amphiboles.

Following graduation from Imperial College, London in 1968, he began work on the amphiboles as the subject of his Ph.D. research in the fall of that year at McMaster University with Douglas Grundy. His thesis work, followed by continued research on the amphiboles after his move to the University of Manitoba in 1973, has resulted in a wealth of published papers on the crystal chemistry and other crystallographic characteristics of a wide variety of amphibole minerals. By 1978, he had published as sole author and with others (especially Douglas Grundy) no fewer than 22 papers on the amphiboles. It was therefore not surprising that he should become recognized as an authority on this mineral group and that he was, as a result, asked to make important contributions to the MSA Short Course on the Amphiboles in 1981 and to provide contributions on these minerals to two encyclopedias. It was also not surprising that he should feel the need to bring together the vast body of data, both his own and those of many others, into one comprehensive work. He has, of course, done this; if I am permitted to say so, as Editor of our journal at the time of submission, I believe that the three reviewers and our current Editor, Robert Martin, also deserve acknowledgement in their recommendation and implementation of that recommendation, respectively, that Frank's important work appear as a single issue of *The Canadian Mineralogist*.

Frank's award-winning paper *The Crystal Chemistry of the Amphiboles* is nothing less than a 300-page book in which he has brought together not only the crystal-chemical data derived from structure analyses by conventional X-ray-diffraction methods but also those derived from Mössbauer, infrared absorption and Raman spectroscopy, nuclear magnetic resonance and numerous other physical methods unfamiliar to most mineralogists. The sections where he critically assesses and collates the abundant data on cation distribution and ordering of tetrahedrally and octahedrally co-ordinated cations in the amphiboles constitute in themselves a major contribution to mineralogy. So comprehensive is Frank's compilation of the structural information on well over 100 varieties of amphibole that this monumental publi-



FRANK C. HAWTHORNE

cation is bound to serve as a source book for mineralogists generally, and as the groundwork for almost any mineralogist contemplating further research on the crystal chemistry and physical characteristics of the amphiboles. It should also be noted that although this paper represents in a sense the culmination of Frank's work on the amphiboles, it by no means marks the end of it; he is in fact coauthor of yet another paper on cation ordering in the amphiboles at this year's GAC-MAC meeting.

Ladies and Gentlemen, I now have much pleasure in presenting, on behalf of the Mineralogical Association of Canada, the 1984 Hawley Medal to Frank Hawthorne.

Citation read by Louis J. Cabri

Mr. President, ladies and gentlemen,

I would like to thank the Mineralogical Association of Canada for this award. It is nice to see one's work published, but it is even nicer to have it recognized in this way. The paper was written, over a period of several years, with the support and encouragement of Professor Bob Ferguson, and it gives me particular pleasure to be able to publicly express my gratitude to him. I wrote the paper without any idea of where it would be published, and I would like to thank Dr. Louis Cabri for encouraging me to submit it to *The Canadian Mineralogist*, and displaying such a flexible approach to conven-

tional ideas of the ideal length of a paper. Editor Bob Martin and his assistant Sandy Doig saved me from numerous errors of fact and internal inconsistencies, and materially improved the text; I would like to thank them for the great deal of additional work that this short note caused them. Most of all, I would like to thank my wife Robin for her love, support and encouragement, particularly during those times when I felt that I could be interested in anything in the world *except* amphiboles. To conclude, it gives me great pleasure to accept the Hawley Medal for 1984; thank you.

Frank C. Hawthorne

THE PAST PRESIDENTS' MEDAL FOR 1984 TO PETR ČERNÝ

This year marks the third Past-Presidents' Medal of the Mineralogical Association of Canada to be awarded, and it gives me much pleasure to make the presentation to one familiar to most of us and a good friend of many of us, our respected colleague, Petr Černý.

Petr has, with his profound studies and writings on every aspect of granitic pegmatites over the past two decades, established a world-wide reputation as leader in this field. His research on pegmatitic rocks and minerals began in his native Czechoslovakia in the 1950s, and it was our great good fortune that he was able to emigrate to Canada in late 1968 despite, or perhaps spurred on by the Soviet invasion of his country that year. Not only was he able to leave Czechoslovakia under difficult circumstances, he was even able to persuade the Czech authorities that the dangers from wildlife in the Canadian wilderness required that he take his hunting rifle with him to Canada, so on his arrival at the Winnipeg airport, he duly carried with him his most precious possession!

It was not long after his arrival in Canada that he was able to visit his first Canadian pegmatites, those in the Winnipeg River area of southeastern Manitoba. The Věžná, Radkovice and Biskupice pegmatites that he had studied in his homeland are relatively fine grained; when he first saw the huge crystals of spodumene, beryl, feldspar and mica in the Winnipeg River pegmatites, he let out an ecstatic cry: "This is Pegmatite Paradise!"

Since his arrival in Canada in 1968 he has carried on an increasingly expanding program of field and laboratory investigations of granitic pegmatites and their associated granites with a large number of able graduate students and other collaborators. His most widely studied pegmatites have been those in the Winnipeg River area of Manitoba including, especially, the Ta-Li-Cs-Be Tanco mine deposit at Bernic

Lake. In recent years he has expanded his investigations beyond the Winnipeg River area to other areas of granitic pegmatites in Canada: to the western part of the Superior Province, the Yellowknife field and Baffin Island in the Northwest Territories, and central British Columbia.

In each of the areas his studies have embraced the petrology, mineralogy and geochemistry of the parent granitic rocks through the more progressively differentiated pegmatites; these reach their ultimate state in the complex mineralized pegmatites, typified by the Tanco deposit, which are rich in some or all of Li, Rb, Cs, Be, Ta, Nb, Ti and other uncommon elements and contain a dazzling array of fascinating minerals. The investigations spearheaded by Petr and supported by his collaborators have ranged all the way from regional field studies of the granites and pegmatites to the structure, zoning, mineralogy and geochemistry of the individual pegmatite bodies, to the fine details of the crystal chemistry of a wide variety of the individual minerals, including the descriptions of several new minerals. These results, described in over one hundred published papers, have profoundly enhanced our understanding of the nature of genesis of granitic pegmatites and their minerals.

Our Association was a direct beneficiary of Petr's wealth of understanding of granitic pegmatites in the form of a 1982 Short Course organized by him, with important contributions from other leading "pegmatologists" and, of course, himself. The resulting Short Course book makes available to interested mineralogists and geologists in the world at large an invaluable state-of-the-art publication.

Ladies and Gentlemen, it is with great pleasure that I present the 1984 Past Presidents' Medal of the Mineralogical Association of Canada to our distinguished colleague, Petr Černý.

Citation read by Anthony J. Naldrett