

## THE PAST PRESIDENTS' MEDAL FOR 1994 TO ROGER H. MITCHELL

It gives me a great deal of pleasure to present Roger Mitchell as the 1994 recipient of the Past Presidents' Medal. Roger is one of the leading authorities on the mineralogy and petrology of alkaline igneous rocks, and his work over the past 25 years has been directed toward a detailed understanding of the origin and evolution of these rocks. To those of us igneous petrologists who spend their time studying mundane rocks like basalts, andesites and rhyolites, Roger's world of jacupirangite, alnoite, lamproite and kimberlite sounds not only more exciting, but much more challenging, and in today's stock market, a lot more profitable. Whereas my world of basalts is a lot more predictable, in Roger's world each new sample is a probable new rock type with a unique set of mineralogical and geochemical challenges. Roger has met these challenges by becoming conversant with many geochemical and mineralogical tools and by very carefully documenting the mineralogy and the complicated chemistry of the minerals in these strange rocks. Roger has not stopped at describing these exotic rocks, but he has tried to very carefully classify and group these rocks, and to pay particular attention to the genetic significance that might be attached to this grouping. Although I have no problem mentioning carbonatites and kimberlites, or orangites and kimberlites in the same breath, I am reluctant to do so in Roger's presence. Roger has never been timid or retiring when it comes to the classification of alkaline igneous rocks.



**ROGER H. MITCHELL**

I have become very impressed with not only the breadth of his research interests, but the care that he has exercised in his publications. The number of his research publications is prodigious, and particularly impressive when you consider that this includes two books. It is fair to say that his books on lamproites and kimberlites are used by anyone considering research on these two very profitable rock types. I am sure that more books are to come and that his recent venture into the field of experimental petrology shows that he is not only content to describe these strange rocks, but he now wants to make them, maybe even improve them.

On behalf of the Mineralogical Association of Canada, I am happy to present to Roger Mitchell the Past Presidents' Medal for research excellence.

Peter L. Roeder

*Mr. President, Peter, Ladies and Gentlemen,*

According to the late Andy Warhol, every person is famous for at least 15 minutes in their lifetime – this must be my 15 minutes. When I was informed that I was to receive the Past Presidents' medal, my immediate reaction was that there must be some mistake, what could I possibly have accomplished that merited such an award? This reaction was prompted by my knowledge of the work of previous recipients and the fact that I work in a branch of petrology that remains to many particularly esoteric and arcane. However, I was assured that I would indeed receive the medal, and that this was not some elaborate plot devised to embarrass me. Having now received the medal, I remain overwhelmed, indeed flabbergasted, but extremely pleased that my studies merit such recognition.

Since being informed of the award and being told I had to make a speech, I spent some time thinking about how and why I have arrived here today. Relax, you are not about to be subjected to a condensed auto-

biography or an Academy Award eulogy. The reason, is in part, pure chance, as I recently decided that we have no real control over much of what happens to us. Thus, single events may lead us down paths that we had not intended to travel. The other part of the reason has been the privilege of being able to follow one's curiosity about the natural world.

The chance event that led to my random walk toward today's ceremony occurred as long ago as 1960. In common with most people, I never studied geology at high school, and I was contemplating a career in chemistry; however, during an interview for a place at a well-known university, I failed to draw the correct structural formulae for naphthalene, and all of the isomers of pentane. This was considered akin to not knowing how to boil water; as a consequence, my ambitions to become an organic chemist were doomed. Instead, I was coaxed by a smooth-talking geochemist to study "elsewhere", and my whole life course was irrevocably changed. Fortunately, "elsewhere" was at the time inhabited by some extremely prominent mineralogists, namely Deer, Howie and Zussman. Consequently, at Manchester I received a serious mineralogical education and eventually could recite large sections of text from a well-known publication. This experience completely destroyed my interest in mineralogy for some years, and I retreated into the world of mass spectrometry and inorganic geochemistry. Fortunately, one person at Manchester, W.S. (Mac) Mackenzie, introduced me to some wonderfully exotic rocks with such poetic names as katungite, kaxtorpita and kakortokite. I never forgot these strange names for rocks full of equally obscure minerals. Obviously, they must be much more interesting than basalts or granites, and I made up my mind to study them. Fortunately, I have never regretted this decision, as these studies broadened my horizons by leading me to many strange places and bringing me into contact with many interesting and curious people.

The study of alkaline rocks remains a challenging field and, to this day, we still do not understand the origins of the majority of them. I hope to continue making my contributions to the petrology of alkaline rocks for many years to come. So far, as this medal attests, I have been relatively successful. However, as Irving Berlin said, "the toughest thing about success is that you've got to go on being a success". Curiously,

an unfortunate consequence of my work has been that I have managed to eliminate most of the bizarre rock names that originally attracted me to this field. However, I am making up for this currently, by introducing a new name for a mineralogically distinct clan of diamond-bearing rocks. Naturally, there is lots of opposition!

The second factor in my course toward today, was in coming to Canada, obtaining a Ph.D. and a real job, and then having my research funded by the then National Research Council, which was later transmogrified into NSERC. The operating grant system of funding, curiosity-driven basic long-term research, remains the best in the whole world. My colleagues in other countries, including the U.S.A. and Russia, but especially in the third world, are downright envious of us here in Canada. We must never let this system be destroyed by short-sighted politically expedient changes to NSERC's granting policy. As we all know, today's curiosity may be tomorrow's industrial salvation. However, we can never predict, only observe with hindsight. This observation is particularly true with respect to my career. When I started studying lamproites in 1977, practically no one outside of a cabal of aficionados had ever heard of them. A proposal that industry or government put up funds to study them with respect to their diamond potential would have been met with derision. No one, least of all me, could have predicted that within a decade, the world's largest diamond mine would be developed in a lamproite body. It was subsequently gratifying to me to learn that what I had discovered about lamproites in academic studies was directly transferable to prospecting and evaluation of lamproitic diamond deposits – a real example of technology transfer and a triumph of the operating grants program!

Thus, chance and the freedom to study in great detail some particularly challenging rock types have led me here. As one might expect, my work has not been done in isolation, and I owe a great debt to many colleagues, technical staff and my wife, Valerie, without whose help I would probably never have achieved anything at all. In closing, I would like to thank every one concerned in the process that led to my selection for the Past Presidents' Medal. It is very, very much appreciated, thank you!

Roger H. Mitchell