The Executive Secretary,
The Australian Academy of Science,
Ian Potter House, Gordon St.,
Canberra ACT 2601,
AUSTRALIE.

Fax (00-61) 2.6257.4620
Tel (00-61) 2.6247.5777

27 October 1997

Dear M. Secretary,

Nomination of Dr T.M. Sabine to the Australian Academy of Science

I was delighted to hear that Dr T. M. Sabine has been nominated to the Australian Academy of Sciences, and to have the letter of 3 September from Professor Robert L. Dewar asking for my assessment of this nomination.

Terry Sabine kindled my interest in neutron scattering more than 36 years ago, when as an undergraduate at Queen's College, University of Melbourne I worked at Lucas Heights as a vacation student. I left Australia a few years later, to work first at the UK AERE, and then at the European High Flux Research Reactor (ILL), but have never forgotten the start that Terry gave me. Indeed I have closely followed Terry's career over the years, have invited him to work at ILL Grenoble, and accepted invitations from him to work in Australia.

It may seem surprising now, when it is often assumed that Australia "can't compete", but Lucas Heights at that time was one of the world's best centres for neutron scattering, ahead of most of those in Europe and even the USA, and Terry was well known for his pioneering work in these techniques. It was a distinct advantage to have worked with him. Even after Terry became head of the School of Physics at the NSWIT, and staff numbers at Lucas Heights were reduced, the Australian reactor remained an excellent neutron source, and Terry continued to actively contribute to the design of new instruments, working with many users from the Universities.

Terry Sabine is one of the small group of international scientists who pioneered the use of neutron scattering for the study of materials. His work started with the practical problem of understanding the mechanical and structural properties of ceramics that were to be used in the Australian Nuclear programme, and although this programme was wound down, the work that was done became the basis for tools which are still at the forefront of research - in particular for the study of the new ceramic superconductors, and ionic conductors related to the chemistry of batteries, fuel cells, hydrogen storage materials etc. Terry Sabine was always interested in the practical applications of his work, whether it was for developing new techniques for using solar energy or storing nuclear waste in synthetic minerals. At the same time he was keenly interested in the theoretical basis of his work, as might be expected after his brilliant academic studies. He combines these practical and theoretical interests with an enthusiasm for teaching that inspired many young scientists.

Terry Sabine has held many offices in the Australian Scientific establishment, and represented Australia internationally on many occasions. While not always a smooth diplomat, he certainly helped establish Australian Neutron Science on the world scene. He is still very active internationally, in particular with recent work at the Australian diffractometer on the Tsukuba synchrotron source, at the ISIS pulsed neutron source, and at the ILL high flux reactor. I have no hesitation in recommending Terry Sabine to you as a worthy Fellow of the Australian Academy.

Sincerely,

Alan W. Hewat, M.Sc., Ph.D., Ph.D. (hon. causa)
Diffraction Group Leader, Institut Laue-Langevin.
Fax (33) 4 76 48 39 06 email: hewat@ill.fr