



**THE SOUTH AFRICAN
CHEMICAL INSTITUTE**

1912-1987

by

D.J.S. GRAY

**THE SOUTH AFRICAN CHEMICAL INSTITUTE
1912-1987**

LIST OF CONTENTS

	Page
Introduction	2
Formation and Membership	2
Association with the AS & TS	5
Local Sections and Conventions	6
Meetings	9
Publications of the Institute	10
Education	14
The Honours and Awards of the Institute	19
Council Meetings	21
Use of both Official Languages	21
Seymour Memorial Library	22
Salary Surveys	22
The Institute Coat of Arms	23
Chemical Companies' Golf Day	23
Occupational Safety	23
Chemex/Filtex Symposia and Exhibition	24
Presidents of the Institute	25

Preface

The central theme of the founding objectives of the South African Chemical Institute in 1912 was to sustain and promote the status and integrity of chemistry and its practitioners. Now, 75 years on, our predecessors would be reassured to see how securely they built. Those early objectives are enshrined in our modern constitution, and the Institute, through its large membership and national character, brings its influence to bear upon every facet of the science and profession of chemistry in South Africa.

Our 75th anniversary is also an opportune time to apply the lessons of the past to the formidable challenges which face the profession and the society in which we function. This booklet turns back the pages of history and reminds us of that proud past. It also reminds us that modest beginnings undertaken with vision and zeal may yield rich dividends!

We look forward to as much incident and progress during the forthcoming 75 years.

It is a privilege to acknowledge our indebtedness to Mr Doug Gray for compiling this document — his authorship provides a happy link with our origins, since his father, Mr James Gray, was the leading figure in the founding of the Institute in 1912.

Dr J.R. Bull
President

Introduction

The history of the South African Chemical Institute has been written on two occasions. The first account was prepared by Principal H R Raikes who was President at the time of the twenty-first anniversary in 1933 and the second was compiled for the Golden Jubilee in 1962. It appeared in the pages of "The South African Industrial Chemist" in the January 1963 issue. The authorship is uncertain but it is suspected Dr Ken Mathieson, the enthusiastic editor of this journal, was responsible.

The two aforementioned accounts have proved of considerable value in preparing this review of the history. Another important source of information was the comprehensive series of Annual Reports which have been published each year and contain a chronological account of events. It is hoped the reader will refer to them if necessary.

The birth of the Institute in 1912 happened only twenty-six years after the discovery of gold on the Witwatersrand in 1886. The general infrastructure for the gold mining industry was very new and still developing. The chemist population was small throughout the country and training facilities were still being established. James Gray, who is reputed to have been the driving force behind the founding of the Institute, was born in Cape Town in 1882, his father having settled there after leaving his job as a ship's engineer in a vessel ferrying troops to the Zulu war. In 1889, when his father moved to the Witwatersrand to the newly developed gold mines (a Rand Pioneer), James was sent to relatives in Glasgow for his education. When he returned, a qualified Associate of the Institute of Chemistry from the Glasgow Technical College in 1902, he went to the Witwatersrand but could not get a job as a chemist and had to work as a mine surveyor. After a while he was employed in Heymann's Laboratories as an Analytical and Consulting Chemist but started his own business about 1910. One can imagine, at that time, there was almost an obsession to have the chemical profession recognised as there was no way the public could distinguish the unqualified practitioner from the qualified. This therefore was one of the main objectives of the Association of Analytical Chemists when founded.

As a general rule, unless there is a particular relevance to the text, names are not mentioned in this account and the reader is referred to the Annual Report for the year in question if he requires further information.

Formation and Membership

In 1912 the only South African organisation embracing the interests of chemists was the Chemical, Metallurgical and Mining Society of South Africa (now the S A Institute of Mining and Metallurgy) which had been formed in 1895. This Society had been responsible for valuable work in the advancement of the chemistry and metallurgy of the gold mining industry. The Cape

Chemical Society had existed since 1906 but its activities were confined primarily to Cape Town and its environs. The Chemical Metallurgical and Mining Society existed for the advancement of chemical knowledge, and though an attempt was made in 1911 to widen its scope to include matters of a professional nature affecting chemists, this endeavour was unsuccessful as its Constitution was not sufficiently flexible. It was a cosmopolitan body embracing many interests not necessarily of a chemical nature and consequently the interest of chemists could not receive the sympathetic attention required. In existence also in 1911 was the S A Association for the Advancement of Science (S.A.A.). This was a multi-disciplinary association of scientists, established in 1901, and though there existed a section within this body for chemists, its nature precluded its selection by chemists as a home for their discipline. As a result of discussion among chemists of the day it was decided to form a body, truly representative of chemists, which would protect their professional interests, within the Union of South Africa.

During November 1911 Mr James Gray addressed a circular letter to as many practising chemists in the Union as possible (at that time it was estimated there were not more than 100 chemists in South Africa who would be entitled to membership of a professional society). The reply was so satisfactory that a meeting was held in Johannesburg on 26 January 1912 at which it was decided to form the S A Association of Analytical Chemists. In those days the facilities for training chemists were few and the result was the majority of chemists had obtained their training overseas. The industries which employed chemists were limited and many a well trained and efficient chemist had to find employment in any assay office where the need for a great knowledge of chemistry was much less than it is today. The S A Association of Analytical Chemists was founded with a total of 22 members, but this number grew quite rapidly and at the end of June 1914 there were 39 members.

The basic model for the Association was the Institute of Chemistry of Great Britain and Ireland. It is interesting to note that the Australian Chemical Institute was founded in 1917 and the Canadian Chemical Institute in 1919. In James Gray's Presidential Address in June 1923 he mentioned that the American Institute of Chemistry was in the process of formation. The Association changed its name to the South African Chemical Institute during 1921 and this was done as the title "Analytical Chemists" rather restricted the scope and objectives of the Society.

Throughout the years the Institute has been concerned with the status of the chemist in the eyes of the community and the lack of understanding of the functions of a chemist. Highlighted at the Annual General Meeting on 6 July 1918 was critical comment of the text of an advertisement for the Department of Agriculture, "practical proficiency in general analytical work is the main qualification required, and a high standard of theoretical knowledge is not essential". Also there were strong objections to the pharmacist being titled

“chemist and druggist” and in this respect the Institute made representations against the use of the latter term in place of the former in the Medical, Dental and Pharmacy Bill brought to Parliament in 1925, but without avail. In 1987 this matter is still unresolved but in the present climate the protests are less vehement.

There was much talk, even in the very earliest days, of the Institute bringing a private members Bill to Parliament for protection of the chemical profession by registration, but inevitably the cost of such action was a stumbling block. It is noted in 1924 that discussions were held with Mr Patrick Duncan, who was then Minister of the Interior, regarding a private Bill at the time of revision of the Medical, Dental and Pharmacy Bill. However the cost of such a Bill would have been £3 000 which was not available. It is interesting to note that later Sir Patrick Duncan was the first South African Governor-General. In 1926 the Institute investigated the possibility of petitioning His Majesty the King with a view to obtaining a Royal Charter. However Council was informed this petition could not be received. Throughout the years the question of registration of chemists has been discussed by the Council of the Institute and in 1945 a Draft Chemical Bill was drawn up. The matter did not progress further but still occupied the interest of Council until 1951 when the Institute aligned itself with AS & TS who were considering a Bill for Society registration. This led to a referendum on registration when members voted on the compulsory registration of the individual. There was a total poll of 59 per cent, 144 being in favour and 384 against.

The matter was shelved for a while until 1971 when the Joint Council of Scientific Societies (JCSS) raised the question of the registration of scientists on an individual basis. However the Council of the Institute was of the opinion that the possibility of registration of scientific societies should be investigated.

The JCSS was formed in the 1960s as a body which could look after the interests of scientists in general. The Institute has been a member since the Society's inception, and has also represented the interests of a number of smaller bodies.

In 1976 a poll conducted by the JCSS proved an overwhelming majority of members of the affiliated Societies were in favour of professional registration and, based on this, draft legislation was prepared. Eventually in 1982 the law for the registration of natural scientists was passed by Parliament and the South African Council for Natural Scientists (SACNAS) was established as from 1 September 1982. It could be claimed that the objective of registration established by the founders of the Institute had at last been achieved.

Membership of the Institute with voting rights (corporate membership) up to 1963 was available to those with a three year degree in chemistry or equivalent qualification. In 1963 this was changed and, except in special circumstances,

only those with honours degrees in chemistry, or the equivalent as adjudged by Council, or under special circumstances, could become corporate members. Chemical engineers were thus not admissible as corporate members as they had not been given adequate training in chemistry. Membership had reached a peak in 1964 at 1 166 members, but began to decline quite dramatically and in 1966 was 999 and by 1971 had fallen to 868. Thereafter it recovered slowly. It seems quite clear that this drop in membership arose from the formation of the S A Institution of Chemical Engineers in January 1964. Many chemical engineers had found their chemical home in the Institute and it is not surprising that on formation of a society catering for their own discipline they resigned from the Institute.

Council was aware of the loss of members and in 1971 was particularly anxious that chemical technicians who were receiving their qualifications from the local Technikon should become members of the Institute. In 1971 the Constitution was altered to admit these candidates and to give them reasonable hope of progression to corporate membership. Subsequently the membership regulations have been revised to regularise the situation regarding chemical technicians.

In 1973 a clause was established in the Constitution to allow companies to take part in activities of the Institute. Two grades of membership were established, namely company and patron membership. As at July 1986 there were 4 patron members and 40 company members. The support of these companies has been of great assistance to the Institute.

It had been realised for some considerable time that only a small portion of the chemists in South Africa were members of the Institute, and it was decided to ask the Human Sciences Research Council (HSRC) whether use could be made of their mailing lists, which were adjudged to be the most comprehensive available, to send a letter to all chemists inviting them to join the S A Chemical Institute. This was done during 1980 and in the next two years there was an increase of 167 members. It can be assumed that some of the increase was due to this “advertising campaign”.

Association with the AS & TS

Until 1920 all the meetings of the Institute were held at the S A School of Mines and Technology Building. From then, with the formation of the Associated Scientific and Technical Societies of South Africa (AS&TS), the meetings were held at the Scientific and Technical Club, 100 Fox Street, Johannesburg. The Institute was one of the ten societies which were foundation members of the new body. An assessment was raised by the AS & TS on all constituent societies to run the club and this practice has continued throughout the years, though the nominal amount has increased considerably.

