



THE SOUTH AFRICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE
DIE SUID-AFRIKAANSE GENOOTSKAP VIR DIE
BEVORDERING VAN DIE WETENSKAP

DIE MARLOTH GEDENKUITGAWE

THE MARLOTH COMMEMORATIVE BROCHURE

**JAARLIKSE MEDALJETOEKENINGSEREMONIE
ANNUAL MEDAL AWARD CEREMONY**

The National President, Professor Erik Holm welcomed members and guests at the Annual General Meeting held in the Senate Hall of the University of South Africa on 13th October, 1989. After which the Annual General Meeting ran its course: Committee members were elected and the National President will be at the helm of the S₂A₃ for the coming year.

In 1947 het die Nasionale Raad van die S₂A₃ besluit om merietesertifikate aan persone aan te bied wie deurslaggewende bydraes tot die bevordering van die wetenskap of aan die S₂A₃ gelewer het. Die klem het met die toekenning van die merietesertifikate by die AJV van 1989, op die erkenning van die besondere inset ten behoeve van die S₂A₃ deur die volgende vier lede geval:

DR. BERTHA VAN DRIMMELEN

Spesialis Internis en Lektrise aan die Universiteit van Pretoria. Bertha is lid van die S₂A₃ al vanaf 1958. Sy dien as Voorsitter van die Pretoriatak van 1979 tot 1985 en word herkies in 1986. Haar buitengewone organisatoriese vermoë en entoesiasme verseker dat die Pretoriatak die belangstelling van wetenskaplikes sowel die leek-lede prikkel. Dr. van Drimmelen dien ook as Nasionale Vise-President sedert 1984.

DR. FRANS KORB

Nieteenstaande 'n daaglikse werklading by die Johannesburgse Algemene Hospitaal en as finalejaar student in psigiatrie aan die Universiteit van die Witwatersrand, het dr. Korb 'n uitstaande bydrae met die voorbereiding van die AJV en die totstandkoming van die Gencor-S₂A₃-Bronsmedaljeborgskap gelewer. Die Gencor-S₂A₃-Bronsmedalje word jaarliks aan elk van die 22 Suid-Afrikaanse universiteite beskikbaar gestel vir toekenning deur elke universiteit aan 'n student wat 'n buitengewoon verdienstelike magisterstudie voltooi het in een van die vertakkinge van die wetenskap.

Die medalje word jaarliks deur die Gencor-Ontwikkelingstrust geborg. Hierdie is 'n trust waartoe al die maatskappye binne die Gencor-groep bydra en dan versprei word aan 'n verskeidenheid projekte. Hierdie projekte sluit in onderwys en opleiding, gemeenskapsontwikkeling, kleinsakeontwikkeling, gesondheidsdienste, verrykingsprojekte en omgewingsbewaring.

Hierdie prysenswaardige betrokkenheid van Gencor met die mense van Suid-Afrika, asook hul voortgesette belangstelling in die S₂A₃ maak hierdie Gencor-S₂A₃-Bronsmedalje een van die belangrikste toekennings aan Suid-Afrikaanse universiteite.

RECIPIENTS OF THE GENCOR-S₂A₃ BRONZE MEDAL

1. University of the Witwatersrand: Mr J.G. Levitt, Master of Science with Distinction – Geophysics “*Ultrasonic Measurement of the Elastic Properties of Fused Quartz at Elevated Temperatures and Pressures*”.
2. University of the Orange Free State: Mr L.O.K. Lategan. M.Sc. with Distinction.
3. University of Port Elizabeth: Miss J.L. Lee. M.Sc. Cum Laude – Physics. “*Steady-state Numerical Solutions for Schottky Barrier Diodes*”.
4. Rand Afrikaans University: Mr O.H. Stielau. M.Eng. in Electrical and Electronics Engineering. “*Saamgestelde Hoëfrekwensietussenkringmutators met Selfgestuurde Wisselrigter en Toevoergekommuteerde Direkomssetter*”.
5. Potchefstroom University for Christian Higher Education: Mr C.F. de Beer. M.Sc. in Statistical and Operational Research. “*Die Skoenlusmetode Toegepas op Hipotesetoetsing*”.
6. Rhodes University: Miss K.C. Sole. M.Sc. with Distinction – Chemistry. “*Kinetics and Mechanism of the Oxidation of Chromium (111) Chloride*”.
7. University of Pretoria: Mr J.H. Barnard. M.Eng. (Electronics and Computer Science). “*Phase-shift Keying on Fast Rayleigh Fading Channels*”.
8. University of Natal – Pietermaritzburg. Mr N.S. Ferguson. M.Sc. Agriculture. “*An Approach to Modelling Feed Intake, Body Composition and Nutrient Requirements in Growing Pigs*”.
9. University of Natal – Durban: Mr S.J. Foster. M.Sc. – Chemistry. “*The Photochemical Kinetics of Thymine and Related Compounds*”.
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11. University of Durban-Westville: Mr P. Singh. M.Sc. Cum Laude – Plasma Physics. “*A Study of the Interaction of Strong Electromagnetic Waves and Anisotropic Ion Beams with a Background Plasma*”.
12. University of Stellenbosch: Mr E.A. de Kock. M.Sc. Cum Laude – Physics. “*Seniority Mappings for Probing Phenomenological Nuclear Boson Models*”.
13. University of Cape Town: Mr J.C. Knight. M.Sc. – Physics. “*The Morphology-dependent Resonances in the Inelastic Optical Scattering from Spherical Droplets*”.
14. University of South Africa: Mr A.J.M. Snyders. M.Sc. – Mathematics. “*Weak Choice Principles*”.

EUGEN HANAU, another merit award winner, is the curator at the Museum and Resources Centre at the Museum of Science and Technology (Foundation of Science and Technology). Trained as an Electronics Engineer, Eugen has worked at the Radcliffe Astronomical Observatory, at the CSIR and as Lecturer at the Pretoria Technikon. He joined the S₂A₃ in 1981 and served as Chairman of the Pretoria branch during 1985/86. His interest and input in the S₂A₃ activities and his commitment to other scientific organisations makes Mr Hanau a worthy recipient of the merit award.

ANNE BENTUM is 'n B.Sc. gegradueerde in datametrie en operasionele navorsing. In 1987 aanvaar Anne die pos as voltydse sekretaresse vir die Nasionale Liggaam van die S₂A₃ maar ook dié van die Pretoriatak. Sy het 'n databasis van lede opgestel, 'verlore' lede probeer opspoor en agterstallige ledegedelde ingevorder. Anne hanteer die daaglikse administratiewe take en is ook die kassiere.

THE SILVER BRITISH ASSOCIATION MEDAL AND FUND

Professor Holm invited Professor Ronald Anderson to the podium to receive the British Association Medal. This medal and fund was established in 1929 to commemorate the second visit to South Africa by members of the British Association for the Advancement of Science. The first recipient was Miss Nellie Fairbairn-Paterson, in 1932. The medal was initially intended for persons under the age of 30 who had presented a meritorious paper based on the results of original research at the Annual Congresses of the S₂A₃. Over the years the nature of the award has changed and the Silver British Association Medal has been awarded to Prof. P. Tobias in 1953; to I.T. Crocker in 1974, to Dr James B. Clarke in 1983 to name but a few. After a lapse of several years, the college of selectors chose Professor Ronald Anderson.

RONALD ANDERSON was educated on the Isle of Bute, Scotland and qualified at the Universities of Glasgow and the Witwatersrand. In April, 1984 he was made a full professor in the Department of Medical Microbiology at the University of Pretoria. At present Professor Anderson is the Director of the Medical Research Council Unit for the study of Phagocyte Functions and Head of the Immunology Department of Medical Microbiology, Institute for Pathology at the University of Pretoria.

Professor Anderson accepted the award with grace and a short speech of thanks.

THE GOLD SOUTH AFRICAN MEDAL AND FUND

BRIAN WARNER was born and educated in England at the universities of London and Oxford. He has held various positions such as Radcliffe-Henry Skynner Senior Research Fellow at the Balliol College Oxford; Associate Professor at the University of Texas; Research Associate, University of Chicago; Head of the Department Astronomy at the University of Cape Town, *et al.*

The John F.W. Herschel Medal of the Royal Society of South Africa, the McIntyre award of the Astronomical Society of South Africa, the Cawthron Memorial Lecturer (Nelson, New Zealand) and the Boyden Premium of the Franklin Institute of Philadelphia are honours that have been conferred on Professor Warner. He also serves as Trustee on several Trusts such as the SA Museum Board of Trustees and the John and Charles Bell Heritage Trust. He is a member of the editorial board of publications dealing with Astrophysics and Space Science and Astronomy.

After receiving the gold medal presented by Professor Holm, the incumbent National President of the S₂A₃, Professor Warner treated the members and guests to an overview of the development of large telescopes, from the invention of the telescope in 1609 to the giant reflectors with apertures up to 5 metres installed in California in the first half of this century. He spoke of the technological limitations which until recently have prevented construction of larger telescopes.

With the advent of laser detection systems and servo-mechanics, it is now possible to construct mirrors up to 10 metres in diameter – either in one complete piece or in a number of smaller (typically 2 metres) sections. By continuously monitoring the shape of the mirror with laser devices, the servo-mechanisms can be used to make the mirror retain its accurately-made shape irrespective of the attitude of the telescope. Large rotating furnaces can produce large mirrors of almost the correct paraboloidal shape, thereby reducing the time required to figure the mirrors to their final form. Large new telescopes, costing up to £100 million, are under construction in Hawaii, Chile and elsewhere. These will initiate a revolution in astronomical knowledge.

1990 EN DIE TOEKOMS

President

Professor Erik Holm

Vise-President

Dr. Frans Korb – Suid-Transvaal

Vise-President

Dr. Bertha van Drimmelen – Transvaal

Vise-President

Mnr. Eugen Hanau – Transvaal

Vise-President

Dr. C. Albrecht – Kaapstad

Vise-President

Professor G.N.J. Meester – Natal

GELDSAKE

Die fondse van die S₂A₃ word tans beheer deur komiteelid Gerard den Dulk, Ing., gerugsteun deur die jarelange ondervinding van S₂A₃-sake deur Professor Govert van Drimmelen. Vergaderings word op gereelde grondslag in Pretoria gehou.

OUR FRIENDS OVERSEAS

In November 1989, Dr Frans Korb had the privilege of visiting the British Association for the Advancement of Science. During this time he discussed matters of mutual interest to the two organisations with Dr David Morley. Presently moves are afoot to establish an International Union of Associations for the Advancement of Science. A plenary session was held in Hanover, Federal Republic of Germany, in October, 1989, with the idea of finally establishing the organisation at a meeting in Singapore later in 1990. Thusfar 25 associations for the advancement of science worldwide have indicated their interest in establishing such an international union. With this visit to London, South Africa has also been placed on the list of interested organisations. Re-establishing contact with the British Association for the Advancement of Science, and the International Union will lead to greater status for the S₂A₃, as well as a very valuable exchange of ideas and information.

ANNUAL GENERAL MEETING 1990

Professor Holm closed the meeting and announced that the next Annual General Meeting would be held in October, 1990. The venue and the exact date to be determined at a later stage.

ESMÉ DEN DULK

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