Short form C.V. ***Sune Svanberg*** ***April 2024***

Sune Svanberg was born in 1943 in Trollhättan, Sweden. After matriculation exam in Trollhättan in 1962 he started studies of natural sciences at the University of Göteborg, where he received his BSc in 1966. He enrolled the graduate school in physics at University of Göteborg/Chalmers University of Technology and first spent half a year at the Technical University of Berlin (Prof. H. Bucka) studying atomic resonance spectroscopy. He brought this field back to his university and defended his PhD in this field 1972 (Thesis advisor: Prof. I. Lindgren). After a post-doc year at Columbia University, New York (Prof. W. Happer) and initial work on atomic laser spectroscopy he continued laser-based spectroscopy at Chalmers up till 1980, when he became professor and head of the Atomic Physics Division at Lund Institute of Technology (technical faculty at Lund University) up till 2008. In Lund a vigorous program of laser spectroscopy, including basic atomic physics and applications to energy, environmental and medical research has been pursued. Basic studies include studies of radiative properties of atoms and ions as well as superintense laser/matter interactions (high harmonics generation, X-ray laser pumping and broadband X-ray generation). Applications include laser radar sounding of pollutants in the atmosphere and hydrosphere, laser diagnostics of combustion processes, and laser-based detection and treatment of cancer and cardio-vascular disease. He has taken the initiative to the formation of three centres for interdisciplinary work: the Combustion Centre, the Environmental Monitoring Centre and the Medical Laser Centre. He also proposed and helped establish a High-Power Laser Facility, including a multi-terawatt 10 Hz laser. In 1995 he was appointed director of the newly established Lund Laser Centre, which also gained the EC status of a European Large Scale Facility. He remained its director until 2010, and continues as Senior Professor at the centre. During 2011-2021 he was a part-time Distinguished professor at the South China Normal University, Guangzhou. He has trained a large number of PhD students from home and abroad through the years. He is a member of the Royal Academy of Sciences (and during 10 years a member of its Nobel Committee for Physics; two years as chairman), and the Royal Academy of Engineering Sciences. Until 1995 he was a member of the Swedish National Space Board and the chairman of its Remote Sensing Committee. He served on the Board of the Swedish Research Council during 2004-2009. He is a Dr *honoris causa* at the Lund University Medical Faculty, at the Science Faculty of University of Latvia, at the Science Faculty of Université de Liège, at the Universidad Nacional de Engineria, Lima, and the Technical University of Athens, a Foreign Member of the Lithuanian Academy of Sciences, the Académie Royale de Belgique, an Associate Fellow of the Third World Academy of Sciences (TWAS), an Honorary Professor at the Zhejiang University, Jilin University and at HIT-Harbin, China, and a Fellow of the American Physical Society, the Optical Society of America, the European Optical Society, the Electromagnetic Academy, and SPIE. He has been a member of the Board of Directors of the Optical Society of America and is the recipient of the first EPS Quantum Electronics Prize (1996) and recipient of the first Azko Nobel Science Award (1999). 2004 he was awarded the SKAPA Innovation Prize, in 2005 the W.E. Lamb Medal, in 2006 the Celsius Gold Medal (Uppsala), in 2009 the Memorial Gold Medal (Lund) and the V.K. Zworykin Award of the International Federation of Medical and Biological Engineering, in 2010 the Adelskold Medal of the Royal Academy of Sciences and the Large Gold Medal from the Royal Academy of Engineering Sciences, Stockholm, and in 2012 the Gold Medal of His Majesty the King of Sweden. He is an "Einstein Professor" of the Chinese Academy of Sciences since 2006, and received China´s highest distinction for non-Chinese, the China Friendship Award in 2013, and became Honorary Citizen of Guangzhou, China, in 2015. He serves on numerous international conference, evaluation and advisory committees. During the years 1987-93 he was a member of the TetraPak Scientific Council and 1993-2000 a member of the Scientific Council of the Volvo Research Foundation. He has supervised a large number of graduate students to their PhD in Physics. He is the co-author of about 700 scientific papers and over 50 patents and patent applications, had scientific collaboration with major international companies and helped in the formation of several spin-off companies. He worked extensively with physicists in developing countries, and helped arrange hands-on workshops where realistic equipment related to medicine, environment and agriculture was introduced.

Curriculum Vitae *April 2024*

SUNE SVANBERG

Sune Roland Svanberg, born January 1, 1943 in Trollhättan, Sweden. Swedish citizen

Married June 14, 1969 to Katarina, née Ragnarsson.
2 children: Emilie, b. 1979 and Kristina, b. 1982

Matriculation examination: HAL Trollhättan, May 12, 1962

Military service: June 5, 1962 - August 29, 1963

Bachelor of Science: Göteborg University, February 15, 1966

"Licenciate" exam in Physics: Göteborg University, August 15, 1969

Doctor's degree in Physics: Göteborg University, May 26, 1972
Title of Thesis: **"Determination of Atomic and Nuclear Properties by the Optical Double Resonance and Level Crossing Methods"**, Mark: Excellent (Berömlig). Thesis Supervisor: Professor Ingvar Lindgren

Title of "Docent" in Physics, Göteborg University, June 8, 1972

Appointed Professor of Physics at Lund University, July 1, 1979

Head, Atomic Physics Division, Lund University, 1980 - 2008

Founding director, Lund Laser Centre, 1995 – 2010

Linnaeus grant coordinator, 2006 – 2011

Senior professor, Lund University, 2010 – 2021, **Professor Emeritus** 2022 -

Distinguished professor and project chief scientist, Center of Optical and Electromagnetic Research, South China Normal University, China, 2011 - 2021

EMPLOYMENT

Research Assistant, September 1, 1966 - June 30, 1974 at **Chalmers University of Technology**, apart from 6 months in 1967 at **Institut für Kernphysik der Technischen Universität Berlin** (Prof. H. Bucka)

1 year in 1972/73 at **Columbia Radiation Laboratory, Columbia University, New York** (Prof. W. Happer). Research Associate

Docent position, Göteborg University, July 1, 1974 - June 30, 1976

Deputy assoc. prof., Chalmers University of Technology, July 1, 1976 - December 31, 1976

2 months in 1976 at **Department of Physics, Stanford University** (Prof. A.L. Schawlow)

1 month in 1976 at **Department of Electrical Engineering, Massachusetts Institute of Technology,** Cambridge (Prof. M.M. Salour)

Special research appointment (Särskild forskartjänst) at the **Swedish Natural Science Research Council**, January 1 1977 - December 30, 1979.

Professor of Physics, Atomic Physics Division, Lund University January 1, 1980 – January 31, 2010; up till December 31, 2008 as Head of Division

Senior professor of Physics, February 1, 2010 – 2021 (part-time employment)

Distinguished professor, South China Normal University, Guangzhou, June 1, 2011 - 2021 (part time)

2 months in 1983 at **The Department of Physics, Stanford University** (Prof. A.L. Schawlow)
6 months in 1985 at **The Department of Physics and Department of Applied Physics, Stanford University** (Prof. A.L. Schawlow, Prof. R.L. Byer) Visiting Professor

HONOURS

Recipient of the Thalén Prize in Physics, Uppsala University, 1976

Member, Royal Science Society, Lund, 1980 - present

Member, Royal Swedish Academy of Engineering Sciences (IVA, Stockholm), Division VII, 1988 -

Member, Royal Academy of Sciences (KVA, Stockholm), Class 3 (Physics) 1991 - present
Adjoint Member, Nobel Committee for Physics 1997
Regular Member, Nobel Committee for Physics 1998 – 2006
Chairman, Nobel Committee for Physics 2004, 2005

Med. dr. *honoris causa,* Medical Faculty, Lund University 1993

Fellow of the American Physical Society, 1995

R.V. Pole Memorial Lecurer, Optical Society of America, 1995

Recipient of the Interdisciplinary Research Prize, Royal Scientific Society, Uppsala 1995
(Jointly with Katarina Svanberg, Dept. of Oncology, Lund University)

Recipient of the European Quantum Electronics Prize, 1996 (European Physical Society)
(Jointly with Claude Cohen-Tannoudji, ENS, Paris)

Foreign member, Lithuanian Academy of Sciences, Vilnius 1997

Recipient of the Akzo Nobel Science Award Sweden, 1999
(Jointly with Marcus Aldén, LTH)

Dr *honoris causa,* University of Latvia, Riga 1999

Fellow, Optical Society of America, 1999

Foreign member, Academie Royale de Belgique, 2001

"Excellent researcher" recognition, Swedish Research Council, 2002

Dr *honoris causa,* Université de Liège, 2003

Certificate of Honour, "for the promotion of lasers & optics within the African continent", 2003

Honorary Professor at Jilin University, Changchun, PRC, 2004

Honorary Professor at Harbin Institute of Technology, Harbin, PRC, 2004

Recipient of the Skapa Innovation Prize, Stockholm 2004
(jointly with S. Andersson-Engels and Katarina Svanberg)

Recipient of the W.E. Lamb Quantum Electronics Prize, 2005
(jointly with G. Mourou and S. Suckewer)

Recipient of the "Atomo de Oro" distinction from the Instituto Peruano de Energia Nuclear, Lima 2005

Einstein professor of the Chinese Academy of Sciences, 2006

Recipient of the Celsius Gold Medal, Royal Science Society, Uppsala, 2006

Superinnovator Award, Society for Industrial Development, 2006

Honorary Professor at Zhejiang University, Hangzhou, PRC, 2006

Recipient of the Swedish Medical Society Erna Ebeling Prize in Biomedical Technology, 2007

Recipient of the Memorial Gold Medal, Royal Physiographical Society, Lund, Sweden, 2008

Associate Fellow, Third World Academy of Sciences, TWAS, Trieste, 2008

Dr *honoris causa*, Universidad Nacional de Ingeneria, Lima, Peru, 2009

Recipient of the International Federation for Medical and Biological Engineering (IFMBE)
Vladimir Zworykin Award, 2009

Fellow of the European Optical Society, 2010

Recipient of the Adelskold Gold Medal, Royal Academy of Sciences, Stockholm, 2010

Recipient of the Large Gold Medal, Royal Academy of Enginering, Stockholm, 2010

Citation for Service to Africa, University of Cape Coast, Ghana, 2010

Recipient of the Medal of the Lithuanian Academy of Sciences, Vilnius, 2010

Honorary membership, Combustion Physics Division, Lund University, 2010

Recipient of the Gold Medal of H.M. the King of Sweden, Stockholm, 2012

Receipient of the Chinese Friendship Award, Beijing, 2013

Fellow of the Electromagnetic Academy, 2014

Fellow of the International Society for Optics and Photonics, SPIE, 2015

Honorary citizen of Guangzhou, China, 2015

Honorary prize by Photonics Sweden for Lifetime Achievements in Optics and Photonics, 2019

Dr. *honoris causa*, at the National Technical University of Athens, Greece, 2019

INTERNATIONAL COMMITMENTS

Board Member etc.

European Physical Society
Atomic and Molecular Physics Division, Board Member 1985 - 1988,
Quantum Electronics Division, Board Member, 1986 - 1992, 1996 - 2002

Optical Society of America
Director at Large, 1997 -1999
Chairman, International Advisory Committee, 1997 - 1999
Max Born Awards Committee, Member 1995, Chairman 1996, Member 1997
Mees Medal Committee, Member 1998, 2000
Fredrick Ives Medal Committee, Member 2002, 2003, Chairman 2004
Meetings Council 2009 - 2011

American Physical Society
Schawlow Prize Committee, Member 2002 – 2004

University of Malaya, Kuala Lumpur 1984 - 1986, External Examiner in Physics
Evaluation Committee on Danish Physics Research, Danish Ministry of Education 1991, Member

Evaluation Committee for I.E.L.S., Foundation for Research and Technology Hellas (FORTH), Heraklion, Crete, Member 1996 -

Scientific Advisory Board, Max-Born Institut für Kurzzeitspektroskopie, Berlin 1997 - 2003

Evaluation Committee for CEN institutes in Paris and Grenoble, 1998, 2000; LOA Palaiseau, 2000

Chairman, International Evaluation Committee for Estonian Physics, 2001

Scientific Advisory Board, MIT Laser Biomedical Research Centre, Cambridge, Mass. 2002 – 2006

Scientific Advisory Board, Rutherford-Appleton and Daresbury Laboratories, CCLRC, 2002 – 2006

Scientific Advisory Board, Photonic Centre, Politecnico di Milano, 2002

Scientific Advisory Board, Istituto di Fisica Applicata – CNR, Firenze, 2002

Scientific Advisory Board, Vilnius Laser Centre, 2002

Scientific Advisory Board, Latvian Centre of Excellence, Riga, 2003 –

Evaluation Committee for CEA, Saclay 2008, Avignon and Saclay 2009

Evaluation Committee for Institute Optique, Orsay, 2008

Advisory Board for the ELI Site Selection Committee, 2009

Scientific Advisory Board, Munich Center for Advanced Photonics (MAP), 2009

European Research Council, Member of Selection Panel PE2 Early grants, 2009 - 2013 ; 2011, 2013 as chairman.

Scientific Advisory Board, ELI-Hungary 2013 - 2021

Scientific Advisory Board, Friedrich Schiller Universität, Jena, Faculty of Chemistry, 2015 -

Rapporteur, Evaluation of Institutes of the the Max Planck Society (MPP, MPQ, MPI, MPIK, IPP), Germany, 2015 – 2017

Scientific Advisory Board Chairperson, Fotonika-LV, University of Latvia, Riga 2021-

Numerous assignments as Chairman/Organizer, Member of Program Committee and Advisory Board etc. at International Conferences

SELECTED NATIONAL COMMITMENTS

Swedish National Space Board (SNSB)
Central Board Member, 1987 - 1995
Remote Sensing Research Committee Member (SNSB), 1979 - 1987
Remote Sensing Committee Member (SNSB), 1987 - 1995 (From 1993 - 1995 Chairman)

Swedish Natural Science Research Council (NFR)
Research Committee Member, 1978
Physics Committee (PUF) Member, 1986 - 1989
Editorial Committee Member, NFR Yearbook 1988

Swedish Engineering Sciences Research Council (TFR)
Board Member, 1999 – 2000

Swedish Research Council (VR)
Board Member, 2004 - 2009
Developmental Science Research Committee Member 2002 - 2003
Synchrotron Radiation Committee, 2000 – 2004

Swedish Strategic Research Council (SSF)
Member, Research Collegium 2004 -
Coordinator, INGVAR II – "Research Leaders of the Future" Leadership Development Programme 2005 - 2009

Lund Combustion Research Centre (FTC), Lund Institute of Technology, Board Member, 1986-1995

Lund Environmental Measurement Techniques Centre, Board Member, 1990 - 2000

Lund University Medical Laser Centre, Board Member and occasional vice director, 1991 - 2010

Lund Laser Centre, Lund University, Director 1995 - 2011

Member of Scientific Council, Hightech Network AB, Malmö 1985 - 1989

Member of Scientific Council, Tetra Pak AB, Lund 1987 - 1993

Member of Scientific Council, VOLVO AB Research Foundation 1993 - 1999

Member of the Board, Mid Sweden University 1996 - 2003

Member of the Board, Institute of Optical Research, Stockholm 1998 - 1999

Member of the Board, Swedish Physical Society 1998 – 2003

Member of the Board, ADOPT Linnaeus Photonics Centre, KTH/SU 2008 - 2014

S. SVANBERG **April 2024**

Scientific papers, according to scientific fields
(about 700 papers)

Atomic spectroscopy and basic spectroscopy techniques

1. J. Ney, R. Repnow, H. Bucka and S. Svanberg, Untersuchung des 4p $^2P_{3/2}$- und 5p $^2P_{3/2}$-Terms des K I-Spektrums durch Resonanzstreuung von Licht zur Bestimmung des Kernquadrupolmoments von ^{40}K, Z. Physik **213**, 192 (1968)
2. S. Svanberg and S. Rydberg, Level Crossing Investigation of the 6p $^2P_{3/2}$ and 7p $^2P_{3/2}$ Levels of ^{133}Cs, ^{135}Cs, and ^{137}Cs, Z. Physik **227**, 216 (1969)
3. S. Svanberg and S. Rydberg, Determination of g_J Factors in the np $^2P_{3/2}$ Series of the Cs-I Spectrum, Physics Letters **32A**, 459 (1970)
4. S. Svanberg, Natural Lifetimes and Hyperfine Structure for ^{39}K in the 5p $^2P_{3/2}$ and 6p $^2P_{3/2}$ Levels of the K I Spectrum by Resonance Scattering of Light, Physica Scripta **4**, 275 (1971)
5. G. Belin and S. Svanberg, Electronic g_J Factors, Natural Lifetimes, and Electric Quadrupole Interaction for ^{87}Rb in the np $^2P_{3/2}$ Series of the Rb I Spectrum, Physica Scripta **4**, 269 (1971)
6. S. Garpman, G. Lidö, S. Rydberg, and S. Svanberg, Lifetimes of Some Highly Excited Levels in the Pb-I Spectrum Measured by the Hanle Method, Z. Physik **241**, 217 (1971)
7. S. Garpman, G. Lidö, S. Rydberg, and S. Svanberg, Optical Double Resonance and Zero Field Level Crossing Spectroscopy Applied to the $5p^36s\ ^5S_2$ Level in the Te-I Spectrum, Z. Physik **247**, 238 (1971)
8. S. Svanberg and G. Belin, Redetermination of the Hyperfine Structure of the 6p $^2P_{3/2}$ Level in ^{133}Cs by the Zero Field Optical Double Resonance Method, Z. Physik **251**, 1 (1972)
9. S. Rydberg and S. Svanberg, Investigation of the np $^2P_{3/2}$ Level Sequence in the Cs I Spectrum by Level Crossing Spectroscopy, Physica Scripta **5**, 209 (1972)
10. S. Svanberg, Stark Effect Investigation of the Third Excited $^2P_{3/2}$ Levels in the First Spectra of ^{87}Rb and ^{133}Cs, Physica Scripta **5**, 132 (1972)
11. L. Holmgren and S. Svanberg, Natural Radiative Lifetimes of the 5p6s $^1P_1$, 5p6s $^3P_{1,2}$, and 5p5d $^3D_{1,2,3}$ Levels of the Sn I Spectrum by Zero Field Level Crossing Spectroscopy, Physica Scripta **5**, 135 (1972)
12. S. Svanberg, Natural Radiative Lifetimes of Some Excited Bi I Levels Belonging to the $6p^27s$ and the $6p^26d$ Configurations Measured by the Hanle Method, Physica Scripta **5**, 73 (1972)
13. S. Garpman and S. Svanberg, Investigation of the Hyperfine Structure of ^{125}Te in the $5p^36s\ ^5S_2$ Level of the Te I Spectrum by Optical Double Resonance and Level Crossing Spectroscopy, Physica Scripta **5**, 213 (1972)
14. S. Svanberg, Determination of Atomic and Nuclear Properties by the Optical Double Resonance and Level Crossing Methods, Abstracts of Gothenburg Dissertations in Science 26, Göteborg 1972.
15. S. Svanberg, P. Tsekeris, and W. Happer, Hyperfine- Structure Studies of Highly Excited D and F Levels in Alkali Atoms Using a CW Tunable Dye Laser, Phys. Rev. Lett. **30**, 817 (1973)
16. R. Gupta, W. Happer, L.K. Lam, and S. Svanberg, Hyperfine Structure Measurements of Excited S States of the Stable Isotopes of Potassium, Rubidium, and Cesium by Cascade Radiofrequency Spectroscopy, Phys. Rev. **A8**, 2792 (1973)
17. S. Svanberg, Spectroscopy of Highly Excited Levels in Alkali Atoms using a CW Tunable Dye Laser, in *Laser Spectroscopy*, ed. by R.G. Brewer and A. Mooradian, Plenum Press, New York 1974.
18. W. Happer and S. Svanberg, Power Series Analysis of Light Shifts in Optical Pumping Experiments, Phys. Rev. **A9**, 509 (1974)

19. L. Holmgren and S. Svanberg, Level Crossing Investigation of the Hyperfine Structure of ^{209}Bi in the $6p^2(^3P_0)6d\ ^2D_{3/2}$ and $6p^2(^3P_1)7s\ ^4P_{3/2}$ Levels of the Bi I Spectrum, Physica Scripta **9**, 211 (1974)
20. S. Svanberg and G. Belin, Determination of Hyperfine Structure and g_J Factors in the Sequences of ^{2}D States in Alkali Atoms Using a Tunable Dye Laser, J. Phys. B: Atom. Molec. Phys. **7**, L82 (1974)
21. G. Belin and S. Svanberg, Laser Spectroscopy Investigation of the Hyperfine Structure of Highly Excited $^2P_{3/2}$ States in Alkali Atoms, Phys. Letters **47A**, 5 (1974)
22. P. Tsekeris, R. Gupta, W. Happer, G. Belin and S. Svanberg, Determination of Hyperfine Structure of Highly Excited S States in Alkali Atoms Using a CW Dye Laser, Phys. Letters **48A**, 101 (1974)
23. W. Hogervorst and S. Svanberg, Stark Effect Investigation of Highly Excited $^2D_{3/2}$ States in ^{133}Cs Utilizing a CW Tunable Dye Laser, Phys. Letters **48A**, 89 (1974)
24. W. Hogervorst and S. Svanberg, Stark Effect Investigation of D States in ^{85}Rb and ^{133}Cs Using Level Crossing Spectroscopy with a CW Dye Laser, Physica Scripta **12**, 67 (1975)
25. S. Svanberg and P. Tsekeris, Hyperfine Structure Investigations of Highly Excited ^{2}D Levels in ^{87}Rb and ^{133}Cs Using a CW Dye Laser in a Two Step Excitation Scheme, Phys. Rev. **A11**, 1125 (1975)
26. G. Belin, I. Lindgren, L. Holmgren and S. Svanberg, Hyperfine Interaction, Zeeman and Stark Effects for Excited States in Potassium, Physica Scripta **12**, 287 (1975)
27. K. Fredriksson and S. Svanberg, Precision Determination of the Fine Structure of the 4d State in Sodium Using Level Crossing Spectroscopy, Physics Letters **53A**, 61 (1975)
28. K. Fredriksson and S. Svanberg, Investigation of the Scalar Stark Interaction for Excited S and D Levels in Cesium Using High Resolution Laser Spectroscopy, Phys. Letters **53A**, 461 (1975)
29. P. Grundevik, M. Gustavsson and S. Svanberg, Isotope Shifts in Dysprosium Measured by High Resolution Laser Spectroscopy, Physics Letters **56A**, 25 (1976)
30. H. Lundberg and S. Svanberg, Determination of Natural Radiative Lifetimes for S and D States in Rubidium and Cesium Using a Pulsed Dye Laser, Physics Letters **56A**, 31 (1976)
31. G. Belin, L. Holmgren and S. Svanberg, Hyperfine Interaction, Zeeman and Stark Effects for Excited States in Rubidium, Physica Scripta **13**, 351 (1976)
32. K. Fredriksson and S. Svanberg, Fine-structure Investigation in the ^{2}D Sequence of Sodium using Level-Crossing Spectroscopy, J. Phys. B (Atom. Mol. Phys.) **9**, 1237 (1976)
33. G. Belin, L. Holmgren and S. Svanberg, Hyperfine Interaction, Zeeman and Stark Effect for Excited States in Cesium, Physica Scripta **14**, 39 (1976)
34. M. Gustavsson, I. Lindgren, G. Olsson, A. Rosén and S. Svanberg, Hyperfine Structure of Metastable States of Barium Studied by Atomic-Beam-Magnetic-Resonance with Laser Detection, Phys. Letters **62A**, 250 (1977)
35. P. Grundevik, M. Gustavsson, A. Rosén and S. Svanberg, High Resolution Laser Fluorescence Spectroscopy in the Deep Blue Spectral Region, Z. Physik **A283**, 127 (1977)
36. R.T. Hawkins, W. Hill, F.V. Kowalski, A.L. Schawlow and S. Svanberg, Stark Effect Study of Excited States in Sodium Using Two-Photon Spectroscopy, Phys. Rev. **A15**, 967 (1977)
37. H. Lundberg, A.-M. Mårtensson and S. Svanberg, Hyperfine Structure in the Sequence of Sodium S-States, J. Phys. B. (Atom. Molec. Phys.) **10**, 1971 (1977)
38. K. Fredriksson and S. Svanberg, Stark Interaction for Excited States in Alkali Atoms, Investigated by Laser Spectroscopy, Z. Physik **A281**, 189 (1977)
39. K. Fredriksson, H. Lundberg and S. Svanberg, Measurement of the Fine-Structure Splitting of the 4 ^{2}D State of Lithium Using Level-Crossing Spectroscopy, Z. Physik **A283**, 227 (1977)
40. S. Svanberg, Measurement and Calculation of Excited Alkali Hyperfine and Stark Parameters, Laser Spectroscopy III, Springer Series in Optics 7, p. 187, Springer Verlag 1977.
41. G. Belin and S. Svanberg, Högupplösande Spektroskopi, Swedish Physical Society Yearbook, Kosmos 1977 (in Swedish).
42. S. Svanberg, Laser-spektroskopi, Swedish Physical Society Yearbook, Kosmos 1977 (in Swedish).
43. M. Gustavsson, H. Lundberg and S. Svanberg, An Efficient Method for Measuring Atomic and Molecular Lifetimes, Physics Letters **64A**, 289 (1977)

44. K. Fredriksson, H. Lundberg and S. Svanberg, Fine-Structure Measurements for Highly Excited F-states of Cesium, Z. Physik A **284**, 429 (1978)
45. H. Lundberg and S. Svanberg, Two Quantum-beat Phenomena Observed for Magnetically Tuned Atomic Sublevels, Opt. Commun. **27**, 235 (1978)
46. H. Frick, B. Galle, B. Persson and S. Svanberg, Lifetime Measurements for Highly Excited 6snd $^1D_2$ States of Barium Using Pulsed Step-wise Excitations, Göteborg Institute of Physics Reports GIPR-182, 1978.
47. P. Grafström, C. Levinson and S. Svanberg, Studies of Molecular Hyperfine Structure Using High-resolution Polarization Spectroscopy, Göteborg Institute of Physics Reports, GIPR-166 (1978)
48. S. Svanberg, Atomic Spectroscopy by Resonance Scattering, Phil. Trans. Roy. Soc. A **293**, 215 (1979)
49. P. Grundevik, H. Lundberg, A.-M. Mårtensson, K. Nyström and S. Svanberg, Hyperfine Structure Study in the P Sequence of ^{23}Na Using Quantum-beat Spectroscopy, J. Phys. B **12**, 2645 (1979)
50. S. Svanberg, Laser Spectroscopy of Highly Excited Atomic States, in *Laser Applications in Atomic, Molecular and Nuclear Physics*, (Nauka, Moscow 1979) p. 60-80.
51. M. Gustavsson, H. Lundberg, L. Nilsson and S. Svanberg, Lifetime Measurements for Excited States of Rare-earth Atoms Using Pulse Modulation of a CW Dye Laser Beam, J. Opt. Soc. Am. **69**, 984 (1979)
52. H. Lundberg and S. Svanberg, Determination of Natural Lifetimes and Landé Factors for Highly Excited F States in Cesium, Z. Physik A **290**, 127 (1979)
53. L. Nilsson and S. Svanberg, Precision Determination of the Fine-structure Splittings of the 5d and 6d States in Potassium, Z. Phys. A **291**, 303 (1979)
54. P. Grundevik, M. Gustavsson, I. Lindgren, G. Olsson, L. Robertsson, A. Rosén and S. Svanberg, Precision Method for Hyperfine-Structure Studies in Low-Abundance Isotopes: The Quadrupole Moment of ^{43}Ca, Phys. Rev. Lett. **42**, 1528 (1979)
55. K. Fredriksson, H. Lundberg and S. Svanberg, Fine- and Hyperfine Structure Investigation in the 5 D - n F Series of Cesium, Phys. Rev. A **21**, 241 (1980)
56. K. Fredriksson, L. Nilsson and S. Svanberg, Stark Interaction in Alkali Atoms, presented in K. Fredriksson, PhD Thesis *Laser Spectroscopy Applied in Studies of Alkali-Atom Structures and in Environmental Monitoring* University of Gothenburg (1980)
57. S. Svanberg, Laserspektroskopi - nytt ljus i atomfysiken, Lundaforskare föreläser (12), CWK Gleerups 1980, p. 30 – 37 (in Swedish).
58. K. Bhatia, P. Grafström, C. Levinson, H. Lundberg, L. Nilsson and S. Svanberg, Natural Radiative Lifetimes in the Perturbed 6snd $^1D_2$ Sequence of Barium, Z. Physik A **303**, 1 (1981)
59. S. Svanberg, Perturbations in Rydberg Sequences Probed by Lifetime, Zeeman-effect and Hyperfine-Structure Measurements, Laser Spectroscopy V, ed. by A.R.W. McKellar, T. Oka, B.P. Stoicheff (Springer, Berlin, Heidelberg 1981) p. 301.
60. P. Grafström, C. Levinson, H. Lundberg, S. Svanberg and M. Aymar, Perturbation of the Ba 6sns $^1S_0$ Sequence by the 5d7d $^3P_0$ State. Probed by Lifetime Measurements, J. Phys. B **15**, 877 (1982)
61. P. Grafström, Z.-K. Jiang, G. Jönsson, S. Kröll, C. Levinson, H. Lundberg and S. Svanberg, Hyperfine Structure and Isotope Shift of Highly Excited Barium-I States, Z. Physik A **306**, 281 (1982)
62. Z.-K. Jiang, H. Lundberg and S. Svanberg, Hyperfine Structure of the 8p $^2P_{3/2}$ and 8p $^2P_{1/2}$ Levels of ^{115}In, Z. Physik A **306**, 7 (1982)
63. S. Svanberg, Nobelpriset i Fysik - Laserspektroskopi, Swedish Physical Society Yearbook, KOSMOS 1982, p. 15 (in Swedish).
64. P. Grafström, A. Grgic, S. Kröll, W. Persson and S. Svanberg, Dopplerfree Polarisation Spectroscopy on the $1s_5$-$2p_2$ and $1s_5$-$2p_4$ transitions in Ne I, Lund Reports on Atomic Physics LRAP-12 (1982).
65. Z.-K. Jiang, H. Lundberg and S. Svanberg, Hyperfine Structure of the 4s $^2S_{1/2}$ State of ^{27}Al, Phys. Lett. **92A**, 27 (1982)
66. P. Grafström, C. Levinson, H. Lundberg, S. Svanberg, P. Grundevik, L. Nilsson and M. Aymar, Zeeman Effect in the Perturbed 6snd $^{1,3}D_2$ Sequences of Ba-I: Test of MQDT Wavefunctions, Z. Physik A **308**, 95 (1982)

67. P. Grafström, Z.-K. Jiang, G. Jönsson, C. Levinson, H. Lundberg and S. Svanberg, Natural Radiative Lifetimes in the Interacting 5snd $^{1,3}D_2$ Sequences in Sr, Phys. Rev. A **27**, 947 (1983)
68. G. Jönsson, C. Levinson, S. Svanberg and C.G. Wahlström, Natural Radiative Lifetimes and Hyperfine Structure of the $4s^26p\ ^2P_{3/2,1/2}$ Levels of Gallium, Phys. Lett. **A93**, 121 (1983)
69. C. Belfrage, P. Grafström, S. Kröll and S. Svanberg, Doppler-free Laser Spectroscopy Measurements on a Ne Discharge for Determination of ^{22}Ne-^{20}Ne Isotope Shifts, Physica Scripta **27**, 367 (1983)
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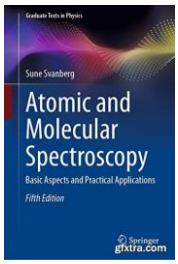

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