

## Vita of Helge V. Knudsen

Position:

Professor (Lektor) emeritus

Address:

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Home address:

Ved Stranden 145  
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Date of birth:

26 April 1947 in Aarhus, Denmark

Family:

Married with one child

Education:

Masters degree 1973, University of Aarhus  
Ph D degree 1977, University of Aarhus

## Positions held:

Ass. lecturer 1973-78 University of Aarhus  
Guest Scientist 1977-78 Oak Ridge National Laboratory  
Professor (lektor) 1978 University of Aarhus  
Scientific Consultant 1987 Los Alamos National Laboratory  
Scientific Consultant 1988 Los Alamos National Laboratory  
Member of the board of IFA 1990-1996  
Spokesman for PS194 collaboration at CERN 1995-97  
Member of the board of ASACUSA collaboration, CERN 1998-  
Group leader in the ACE collaboration, CERN 2002-

## Current Research interests:

Experimental investigations of charge changing atomic collisions, with special emphasis on the behaviour of few electron systems. Multiple electron processes and electron correlation in dynamic systems. Impact of particles and their antiparticles on atoms and molecules. Positron Physics. Production of Antihydrogen. Photoionization of ions. Ultrarelativistic atomic collisions. Radiotherapy with antiprotons.

## International collaboration:

Member of the PS194 collaboration at LEAR, CERN from 1986-97  
Member of the WA99 collaboration at SPS, CERN from 1993  
Organizer of the XVIII International Conference on the Physics of Electronic and Atomic Collisions (ICPEAC), Aarhus Denmark 1993  
Member of the ICPEAC General Committee from 1995  
Member of the ATHENA collaboration at CERN from 1996-1999  
Member of the EUROTRAP TMR EEC network from 1997-2001  
Member of ASACUSA collaboration at CERN from 1997  
Member of AD Users Committee (ADUC) at CERN from 1997  
Member of CRYRING Programme Advisory Committee (CPAC) at Stockholm University from 1997 - 2001  
Organizer of the second international workshop on atomic collisions and atomic spectroscopy with slow antiprotons (PBAR01), Aarhus, Denmark 2001.  
Organizer of the International Workshop on Low Energy Positron and Positronium Physics (POSITRON03) Aarhus, Denmark 2003.  
Member of the ACE collaboration at CERN 2002 -  
Member of the steering committee for the future Low Energy Antiproton Facility at GSI, Darmstadt 2003-  
Member of the International committee, LEAP conferences 2005-  
Member of the International committee, VARENNA conferences 2005-  
Member of the International committee, LEPPP conferences 2005-  
Member of the NA63 collaboration at CERN 2005-

## Public Relations:

Chairman of IFA's PR committee 1999-  
Member of the Aarhus County Steering group for the Danish Science Festival 2000-  
Responsible for the IFA visitors service. 1997-  
Responsible for the public lectures of the Science Faculty 2006 -  
Member of the faculty of Science Committee for Public relations 2007-

Other administration:

Member of the Faculty of Science Committee for Vocational Guidance 2005-  
Member of the IFA Council 2007 -  
IFA's employment officer 2008-  
Member of the board of the Danish Physical Society 2008-

Chairman of the External Examiners in Physics and astronomy, The Danish Universities  
2014 -

Publications:

More than 200 scientific articles, the majority of which published in peer - reviewed journals.  
Many popular papers.  
See my publication list.

A few recent publications:

C. Scheidenberger, .... , H. Knudsen,.... (20 authors): "Electromagnetically-induced nuclear charge pickup observed in ultra-relativistic Pb collisions" Phys. Rev. Letters 88 042301 (2002)

S.. P. Møller, A. Csete, T. Ichioka, H. Knudsen, U. I. Uggerhøj, and H. H. Andersen: "Antiproton Stopping at Low Energies: Confirmation of Velocity-Proportional Stopping Power" Phys. Rev. Letters 88 193201-1 (2002)

S.P.Møller, A. Csete, T. Ichioka, H.Knudsen, U.I.Uggerhøj, and H.H.Andersen: "Stopping Power in Insulators and Metals without Charge Exchange" Phys. Rev. Letters. 93, 042502-1(2004)

Michael H. Holzscheiter, Niels Bassler, Nzhde Agazaryan, Gerd Beyer, Ewart Blackmore, John J. DeMarco, Michael Doser, Ralph E. Durand, Oliver Hartley, Keisuke S. Iwamoto, Helge V. Knudsen, Rolf Landua, Carl Maggiore, William H. McBride, Søren Pape Møller, Jørgen Petersen, Lloyd D. Skarsgard, James B. Smathers, Timothy D. Solberg, Ulrik I. Uggerhøj, Sanja Vranjes, H. Rodney Withers, Michelle Wong, and Bradly G. Wouters: The biological effectiveness of antiproton irradiation, Journal of Radiotherapy and Oncology 81, 233 (2006)

H. Knudsen, H.-P. E. Kristiansen, H. D. Thomsen, U. I. Uggerhøj, T. Ichioka, S. P. Møller, C. A. Hunniford, R.W. McCullough, M. Charlton, N. Kuroda, Y. Nagata, H. A. Torii, Y.

Yamazaki, H. Imao, H. H. Andersen, and K. Tökesi: Ionization of Helium and Argon by Very Slow Antiproton Impact Phys. Rev. Letters 101, 043201 (2008)

Books:

Editor of the proceedings XVIII International Conference on the Physics of Electronic and Atomic Collisions (ICPEAC), Aarhus Denmark 1993 (American Institute of Physics Press)

Editor of the proceedings of the 3rd Euroconference on Atomic Physics at Accelerators, Aarhus, Denmark 2001 (Kluwer Academic Publishers)

Editor of the proceedings of the International Workshop on Low Energy Positron and Positronium Physics (POSITRON03) Aarhus, Denmark 2003 (Elsevier Science Publishers)