

29 November 2019

Dear Krause Center Award Selection Committee:

It is my distinct privilege to present the nomination of Dr. John M. Palms '58, CAPT, USAF (Ret.), for the Krause Center Award for Distinguished Service, Leadership, and Ethics. An internationally recognized scientist and academician, national security advisor, eminent educator and public servant, distinguished Citadel graduate, and tireless advocate for humanitarian causes, Dr. Palms exemplifies to the highest degree, the ethos of the Krause Award and the essence of servant-leadership. His is the story of a life well-lived, a man running to win the prize for the upward calling.

Born in the Netherlands, John M. Palms immigrated to the United States in 1951, becoming a Citizen in 1956. He graduated from The Citadel as a distinguished Air Force ROTC cadet in 1958, receiving a commission into the United States Air Force. While on active duty with the USAF, Dr. Palms completed a master's degree in physics, served as a nuclear weapons officer, and taught physics at the US Air Force Academy. After being honorably discharged in 1970, he completed the Ph.D. in physics and joined the faculty of Emory University, where he rose through the ranks, ultimately being appointed as the Charles Howard Chandler Professor of Radiation and Environmental Physics. His 23-year career at Emory was one of ever-increasing responsibility and leadership, culminating in his role as the University's Chief Academic Officer. This accumulated experience led to a two-year turn as president of Georgia State University, after which he accepted the invitation to become the 26th president of the University of South Carolina (USC), a post which he served faithfully and fruitfully for 12 years.

During the Palms presidency, USC enjoyed a period of increased service and effectiveness, including the largest capital campaign in the history of state (\$500 million), a 50% increase in external funding for research to \$123 million, a \$300-million investment in campus infrastructure, and an 11% increase in enrollment at the seven campuses outside Columbia. Though an impressive record for a university president, what is more impressive and demonstrative of Dr. Palms' commitment to servant-leadership was his insistence on shaking the hand of every graduate at every campus throughout the state. In the course of USC's Bicentennial Celebration, he led the focus on reconnecting the University to the citizens of South Carolina. He retired from USC as Distinguished President Emeritus and Distinguished Professor Emeritus.

His expertise in radiation physics and his accumulated business experience led to service in numerous advisory roles – as a member of the National Nuclear Accreditation Board, the Advisory Council for the National Academy of Nuclear Training, and as leader of the team that designed the environmental radiation monitoring program in the wake of the Three-Mile Island Nuclear Power Plant accident. Further, he served for twenty-one years on the board of Exelon Corporation, the largest nuclear utility in the US, five years as board Chairman for Assurant Corporation, and ten years as Chairman of the Institute for Defense Analyses, a federally-funded non-profit, advising the Secretary of Defense and other federal agencies including the National Institutes of Health, the National Science Foundation, the Department of Energy, and the Office of Science and Technology. Moreover, he served on the board of The Geo Group, one of the largest public prison companies in the world, and Computer Task Group, an information technology company.

Perhaps what separates Dr. Palms from his peers, many of whom have enjoyed lives of distinguished leadership, is his volunteerism and advocacy for those less-visible humanitarian causes that impact all members of society. For his educational contributions within the Catholic Church, Dr. Palms and his wife Norma received the Papal Honor Pro Ecclesia et Pontifice Cross from Pope Benedict XVI, the highest honor that is bestowed on a lay person. He served on the board of the Nederland American Foundation, Chairing the Education Committee, which is responsible for supporting Fulbright scholar exchanges between the US and the Netherlands. He is active supporter of numerous volunteer and charitable organizations including United Way, Spoleto Festival USA, and is an active member of the Swain Family School of Science and Mathematics Dean's Advisory Council.

Despite his numerous accolades and many top-tier administrative and advisory roles, John Palms is a humble human being, who thinks of others before himself, and who sees and seeks the good in his fellow man. For all his honorific service and life-long pursuit of excellence with integrity, exemplifying the core values of honor, duty, and respect, I implore you to consider him for the Krause Center Award for Distinguished Service, Leadership, and Ethics, a fitting tribute to a life well-lived and a model alumnus of The Citadel.

Respectfully Submitted,

Dani J. Lo

COL Darin T. Zimmerman, Ph.D. Dean and Professor of Physics Swain Family School of Science and Mathematics

JOHN MICHAEL PALMS, Ph.D., ScD (Hon), LHD (Hon) Vitae

Current Academic Position:	Distinguished University Professor Emeritus, 2007-present, Distinguished President Emeritus, University of South Carolina, 2002-Present		
Personal:	Born, Rijswijk, The Netherlands 1935 – Naturalized U. S. Citizen (1957)		
Education:	1959-1966	University of New Mexico, Ph.D. (Physics), 1966 (Dissertation, University of California, Los Alamos Scientific Laboratories)	
	1958-1959	Emory University, M.S. (Physics)	
	1954-1958	The Citadel, B.S. (Physics)	
	1953-1954	St. Petersburg Junior College (one semester)	
	1951-1953	Clearwater High School, Clearwater, FL	
	1949-51	St. Alloysius College (High School), The Hague, The Netherlands	
Special Honors:		shment of the Annual Dr. John M. Palms Outstanding Innovation Award for Exceptional Contributions to the Nuclear Power	
		Industry in maintaining a safe and effective working environment for nuclear plant personnel, Department of Nuclear Engineering, Plasma and Radiological Engineering, University of Illinois Urbana, Champaign, Illinois	
		g of a major research building, the John M. Palms Center for Graduate Science Research, University of South Carolina.	
	-	uished Service as Board Member The Institute for Defense Analyses (1988-2012) and Chair (1998-2012), Alexandria, VA	
		Corporation Scholarship Program John M. Palms, Ph.D., Linn State Technical College (\$5,000 Annually), Linn, MO	
		Corporation Executive Committee Scholarship Program, John M. Palms, Ph.D., (\$5,000 Annually), Purdue University, West Lafayette, IN.	
	2012 Spoleto	Festival USA First Annual, "The Mary Loretta Ramsey Award for Generosity and Commitment to Developing and Enriching the Community of Charleston," with Norma Cannon Palms, Charleston, SC	
	2011 Assura	nt Corporation Distinguished Service as Board Member (1990-2011) and Chair (2001-2011), New York, NY.	
	2009 The Ci	tadel Distinguished Alumnus Award, School of Science and Math	
	2007 Papal F	Ionor Pro Ecclesia et Pontifice Cross from the Holy Father, Pope Benedict, XVI, 2007, the highest award given to a lay person for church work while serving as President at the University of South Carolina	
		epkin Abbey Wisdom Award, Mepkin Abbey, Moncks Corner, SC	
		ands/America Foundation Ambassador K. Kerry Dornbush Award	
		F. Zimmerman Outstanding Alumni Award, University of New Mexico	
	2002 Bestow	ving on President Palms the title Distinguished President Emeritus,	
		the University of South Carolina Board of Trustees	

Special Honors Continued:	2002	A Con	current Resolution, the South Carolina House of Representatives and the Senate express their boundless gratitude for a highly successful tenure as President of the University of South Carolina	
	2002	Honor	ary Degree, Doctor of Humane Letters, University of South Carolina	
	2002		enter of Excellence John M. Palms Bicentennial Chair, University of South Carolina; now (2015) endowed at approximately 2.0 million dollars.	
	2002		rder of the Palmetto, the State of South Carolina Highest Award Presented by Governor David Hodges.	
	2001	The N	ational Collegiate Honors Council, Presidential Leadership Award for Exemplary Achievements on behalf of Honors Education at the University of South Carolina.	
	2001	North	American Technical Center, ISOE OECD NEA/IAEA, Radiation Protection Professional of the Year	
	1 995	USC S	Student Government, Richard A. Rempel Faculty Award, (for service to students)	
	1 990	Comn	nendation by the Senate of the State of Georgia for Leadership and other purposes and other purposes as Distinguished President	
	19 88	Emory	V University, Awarded a Chair, the Charles Howard Candler Professor of Nuclear Radiation and Environmental Physics	
	1985	Emory	v University, Thomas Jefferson Award, Emory, (Emory's highest award for leadership and service by Trustees, Faculty and Students)	
	1980	The C	itadel, Honorary Degree, Doctor of Science	
	1980			
	1958			
	1958	The C	itadel, Newman Club, Outstanding Catholic Scholar of the Graduating Class of Nineteen Hundred and Fifty-Eight.	
	1958	The C	itadel, Who's Who Graduate	
1		The C	itadel, President Arnold Air Society	
	1958	The C	itadel, Sigma Pi Sigma, Honorary Physics Society, Regional President	
	1958	The C	itadel, The Round Table	
Positions as Presidents:	1991-2	2002	President, Professor of Physics, University of South Carolina, Columbia, South Carolina	
	1 989- 1	1991	President, Professor of Physics, Georgia State University, Atlanta, Georgia	
Emory University Positions:	1988- 1	1989	Charles Howard Candler Professor of Nuclear Radiation and Environmental Physics	
	1985-1	1986	Interim Dean of the Graduate School	
	1982-2	1988	Vice President for Academic Affairs	
	1980-1	1 982	Vice President for Arts and Sciences; Acting Director, Emory University Computing Center	
	1979-	1980	Vice President for Arts and Sciences; Acting Dean of Emory College	
	1979-	1980	Acting Chairman, Department of Anthropology	
	1976-1		Acting Chairman, Department of Mathematics and Computer Science	
	1974-		Dean, College of Arts and Sciences	
	1973-		Professor of Physics and Chairman, Physics Department; Associate Professor, Radiology Department, School of Medicine	

Emory University Positions Continued:	1969-1973	Chairman, Associate Professor, Physics Department Assistant Professor, Physics Department
<u>1 Ostitons Continueu.</u>	1900-1909	Assistant Professor, Physics Department
Military Service:	1966-71	Air Force Inactive Reserve – Honorable Discharge, Captain
	1961-62	Instructor, United States Air Force Academy
	1 959-6 1	Air Force Special Weapons Center, Air Research and Development
		Command, Weapons System Analysis Group, Kirkland Air Force
		Base, Albuquerque, New Mexico, Liaison with Los Alamos
		Scientific Laboratory and Livermore National Laboratory and Air
		Force, Navy, and Army – Special Weapons
	1958-1962	Regular Commission and service in the United States Air Force
	1958-1959	Second Lieutenant, Emory University, M.S. in Physics
Other Positions:	1966	Staff Member, Oak Ridge National Laboratory Instrumentation Division
	1963-66	Staff Member, University of California, Los Alamos Scientific Laboratory, Physics
	1962-63	Staff Member, Western Electric, Sandia Laboratory, High Altitude Weapons Effects
	1959-61	Lecturer, Physics Department, University of New Mexico
	1958	Summer, Civilian Physicist, Aeronautical Research Laboratory, Wright Patterson Air Force Base
	1956	Physicist Civilian, Army Ballistic Missile Agency, Huntsville, Alabama

Special Committees:

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<u>.</u>	Government:	
		Defense Science Study Group Mentor, Institute for Defense Analyses (IDA)
	1988-2012	Institute for Defense Analyses (IDA), Alexandria, Virginia, a federally funded research and development center (FFRDC); Board of Trustees Chairman, (1998-2012)
	Summer 1991	Federal Advisory Commission on Consolidation and Conversion of Defense Research and Development Laboratories
	1989 & 1990	Defense Science Board Summer Study Task Force
	1990	Environmental Protection Agency Panel Member for Review of Computerized Radiological Risk Investigation System (CRRIS)
	1985-89	Oak Ridge National Laboratory, Health & Safety Research Division Advisory Committee to the Director
	1996	Panel for Semiconductor Detectors, National Academy of Science National Research Council
	1996	President's Commission on White House Fellowships, Atlanta Regional Selection Panel
	Education:	
	2011-Present	Advisory Committee, College of Science and Mathematics, The Citadel
	2012-2014	Chair of Advisory Committee to the President, The Citadel

2012-2014	Chair of Advisory Committee to the President, The Citadel
2002-2003	Chairman, Southern Association of Colleges and Schools Substantive
	Change Committee, Integration of stand-alone Medical School as
	part of the University of Tennessee System

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Special Committees Continued:	1986-2000	Chairman, Southern Association of Colleges and Schools Re- Accreditation Visiting Committee for Southern Methodist University (2000), Auburn University (1992-93), University of Miami (1986)	
	1995-96	Chairman, Rhodes Scholars Selection Committee, South Carolina	
	1994	Truman Scholarship Selection Committee	
	1987 & 1989	-	
	1981-88	Executive Committee, American Council on Education, Chief Academic Officers and Provosts	
	1980-89	Advisory Committee, Fernbank Museum of Natural History	
	1970-74	Council Member, Chairman, Oak Ridge Associated Universities	
Professional	American Ass	ociation for the Advancement of Science	
Societies:		ociation of Physics Teachers	
		incil of Education	
		nference of Academic Deans	
	American Phy	•	
		poosts and Academic Vice Presidents	
		lectrical and Electronic Engineers	
	Nuclear Science Group, American Nuclear Society		
	Health Physics Society		
	Sigma Xi		
	Sigma Pi Sign	na	
Boards (Trustee	Educational:		
and/or Director):	2001-2002	National Collegiate Athletics Association, Board of Directors	
	1997-2002	National Merit Scholarships Corporation, Board of Directors	
	1991-2002	South Carolina Council of Presidents; President, (1999-2000)	
	1984-1989	Wesleyan College, Macon, Georgia, Board of Trustees	
	1984-1989	Pace Academy, Atlanta, Georgia, Board of Trustees	
	1974-2001	Presidential Advisory Committee, The Citadel	
	Industrial:		
	2006-2011	The Geo Group, Inc., Boca Raton, Florida, Board of Directors-All Committees	
	2003-2007	Maroon Biotech, Chicago, IL, Board of Directors, Chair	
	2001-2012	Computer Task Group (CTG), Buffalo, NY, Board of Directors and Compensation Committee	
	2001-2007	SIMCOM International Holdings, Incorporated, Atlanta, GA, Board of Directors, Audit Committee	
	2000-2012	Exelon Corporation (merger of PECO Energy and Unicom Chicago), Board of Directors, Audit Committee and Genco Committee	
	1997-2001	Institute of Nuclear Power Operations National Advisory Council	
	1995-1999	Norfolk Southern Corporation Advisory Board	
	1996-1997	Carolina First Bank, Board of Directors, Audit Committee	
	1992-1995	NationsBank of the Carolinas, Columbia, South Carolina, Board of Directors, Finance Committee	

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Boards (Trustee and/or Director)	1991-2001	Mynd Corporation (formerly Policy Management Systems), Columbia, South Carolina, Board of Directors		
Continued:	1991-2000	PECO Energy, Philadelphia, Pennsylvania, Board of Directors, Chairman of Nuclear Committee		
	1990-2004	Assurant, Inc. (formerly Fortis, Inc. and AMEV, Board of Directors (2004-2011) Chairman of the Board (2004-2011)		
	1985-1990 1984-1989	Source Technologies, Inc., Atlanta, Georgia, Board of Directors Institute of Nuclear Power Operations, National Academy for Nuclear Training, Atlanta, Georgia, National Nuclear Accreditation Board		
	1979-2010	Three Mile Island Public Health Fund-Committee to Develop Publicly Acceptable Environmental Monitoring Program for Three Mile Island –post-accident)		
	Governmental and Community:			
	2004-present	Spoleto Festival USA Trustee, Charleston, South Carolina		
	-	Chair, Samuel Freeman Charitable Trust, New York, NY		
	1993-2002 1991-2002	Central Carolina Economic Development Alliance		
	1991-2002	Greater Columbia Chamber of Commerce, Board of Directors South Carolina Universities Research and Educational Foundation Board		
		South Carolina Research Authority Board		
		United Way of the Midlands, Board of Directors		
	1989-1990	The Atlanta Area Council of The Boy Scouts of America, Executive Board		
	1987-1989	Saint Joseph's Hospital, Atlanta, Georgia, Board of Trustees		
	1988-1989	Georgia Research Alliance, Board of Trustees		
	1988-1990	Civic-Atlanta Partnership of Business and Education, Inc., Board of Directors		
		United States Penitentiary, Atlanta, Georgia, Community Relations Board		
		Atlanta Chamber of Commerce High Technology Task Force		
		Dekalb County Chamber of Commerce Economic Development Committee		
		Georgia Partnership for Excellence in Education		
Publications and	Edited confer	ence proceedings		
Presentations:	Presented over	er 40 papers and abstracts		
	Produced and interviewed on "Emory Today" television program			
	Published six book chapters			
	Published 60 scientific and technical papers			
	Published 150 reports in various research fields Has spoken to numerous educational, service, science, and religious groups and			
	Has spoken w	organizations		
Consultation:	Academy of Natural Sciences, Philadelphia, Pennsylvania			
	Allied Chemical Nuclear Services, Barnwell, South Carolina			
	Celenase Corporation, North Carolina			
	Georgia Department of Human Resources, Atlanta, Georgia Hughes Aircraft, Inc., Santa Barbara, California			
	-	Lockheed, Marietta, Atlanta		
	National Can	•		

Consultation Continued:

Recent Selected Papers and Presentations:

Personal

nformation:

Oak Ridge National Laboratory, Health Safety Research Division Advisory Committee to the Director Ortec Inc., Oak Ridge, Tennessee Tennelec, Inc., Oak Ridge, Tennessee Three Mile Island Public Health Fund, Philadelphia, Pennsylvania TWR Space Systems Division, Los Angeles, California

<u>Twenty-Five Years of Environmental Radionuclide Concentrations near a Nuclear</u> <u>Power Plant</u>. By Charles Harris, Danielle Kreeger, Ruth Patrick, John M. Palms *Health Physics* – The Radiation Safety Journal, Vol. 108, No 6, 503-513

May 2015

- A Personal Fifty-Five Year Life and Perspective in Fundamental and Applied Atomic and Nuclear Radiation Physics, Invited Plenary 1 Session Paper Symposium on Radiation Measurements and Applications (SORMA XV) – June 8-12, 2014, University of Michigan
- Exelon Board Governance Approach to Achieving Excellence in Nuclear Plant Fleet Operations and Nuclear/Radiological Safety. Plenary Opening Speaker at 2012 Asian ISOE ALARA Symposium, IAEA Commission/OECO-NEA – 2012
- 25-Y Study of Radionuclide Monitoring with Terrestrial and Aquatic Biomonitors. By John Palms, Ruth Patrick, Danielle Kreeger and Charles Harris. *Health Physics* – The Radiation Safety Journal, Vol. 92, No. 3, 217-225 – March 2007

<u>A Nuclear Renaissance</u>. Plenary opening speaker at the 2007 ISOE International ALARA Symposium EPRI Radiation Protection Conference. Global Expansion of Nuclear Power Successful Operation, Fort Lauderdale, FL – January 2007

<u>Twenty-Five-Year Study of Radionuclide in the Susquehanna River via Periphyton</u> Biomonitors. By Ruth Patrick, John Palms, Danielle Kreeger and Charles Harris. *Health Physics* – The Radiation Safety Journal, Vol. 92, No. 1, 1-9 – January 2007

<u>The Future of the World Nuclear Power Industry</u>. Presented at the World Nuclear University, Stockholm Sweden, 2006 Summer Program Institute. Attended by Nuclear Power Industry representatives from thirty-five countries – August 2006

<u>The Current Status of U.S. Nuclear Power and Prospects for the Future</u>. Invited paper presented at the University of Chicago – Argonne National Laboratory Symposium "Chernobyl: Reflections on Health Consequences of a Nuclear Catastrophe – May 2006

Married: Norma Cannon Palms (1958) Charleston, South Carolina Children: John Michael, Jr. (1959), Danielle Maria (1966), and Lee Cannon Palms (1969) Nine grandchildren Hobbies include playing sports, reading, recreational time with wife and family Fine and Performing Arts Performances Church Communities Fund Raising Updated June 3, 2015

John Michael Palms, Ph.D, Sc.D (Hon)., LHD (Hon)

Recent Authored and Co-Authored Publications and Presentations: (2006-2015)

<u>Twenty-Five Years of Environmental Radionuclide Concentrations nears a Nuclear Power Plant</u>. By Charles Harris, Danielle Kreeger, Ruth Patrick, John M. Palms – *Health Physics* – The Radiation Safety Journal, Vol. 108, No 6, 503-513 – May 2015

A Personal Fifty-Five Year Life and Perspective in Fundamental and Applied Atomic and Nuclear Radiation Physics, Invited Plenary 1 Session Paper Symposium on Radiation Measurements and Applications (SORMA XV) – June 8-12, 2014, University of Michigan

Exelon Board Governance Approach to Achieving Excellence in Nuclear Plant Fleet Operations and Nuclear/Radiological Safety. Plenary Opening Speaker at 2012 Asian ISOE ALARA Symposium, IAEA Commission/OECO-NEA – 2012

<u>25-Y Study of Radionuclide Monitoring with Terrestrial and Aquatic Biomonitors</u>. By John Palms, Ruth Patrick, Danielle Kreeger and Charles Harris. *Health Physics* – The Radiation Safety Journal, Vol. 92, No. 3, 217-225 – March 2007

<u>A Nuclear Renaissance</u>. Plenary opening speaker at the 2007 ISOE International_ALARA Symposium EPRI Radiation Protection Conference. Global Expansion of Nuclear Power Successful Operation, Fort Lauderdale, FL – January 2007

<u>Twenty-Five-Year Study of Radionuclide in the Susquehanna River via Periphyton</u> Biomonitors. By Ruth Patrick, John Palms, Danielle Kreeger and Charles Harris. *Health Physics* – The Radiation Safety Journal, Vol. 92, No. 1, 1-9 – January 2007

<u>The Future of the World Nuclear Power Industry</u>. Presented at the World Nuclear University, Stockholm Sweden, 2006 Summer Program Institute. Attended by Nuclear Power Industry representatives from thirty-five countries – August 2006

<u>The Current Status of U.S. Nuclear Power and Prospects for the Future</u>. Invited paper presented at the University of Chicago – Argonne National Laboratory Symposium "Chernobyl: Reflections on Health Consequences of a Nuclear Catastrophe – May 2006

Master's Thesis, MS - (1959)

"Triple Coincidence Positron Spectroscopy," Physics Department, Emory University (1959).

Dissertation, Ph.D. - (1966)

"Coulomb Excitation of Ytterbium Nuclei," Physics, Tandem Van de Graaff Facility, P Division, University of California's Los Alamos Scientific Laboratory. Degree from University of New Mexico.

Publications Authored and Co-Authored:

Major Reports

"Proceedings of the International Conference on Inner Shell Ionization Phenomena and Future Applications," (edited by R.W. Fink, S.T. Manson, J.M. Palms and P.V. Rao), Volumes I, II, III, and IV, 2384 pp. U.S. Atomic

"Radiological and Ecological Studies in the Vicinity of the Susquehanna Steam Electric Station: Aquatic-Terrestrial Studies." Reports from years 1980-1986, Division of Environmental Research, The Academy of Natural Sciences, Philadelphia, PA 19103.

"In-Plant and Environmental Monitoring and the Management of Radioactive Effluents Information for Light Water Reactors, e.g., Three Mile Island," The Academy of Natural Sciences, Philadelphia, PA 19103 (1987). The appendices written with Ruth Patrick, David Walker, Barry Wahlig, Mahmoud R. Ghavi, John Till, William Harding and Abraham S. Goldin.

Book Chapters

"Newer Developments in Detector Design and Materials," Ch. 5, <u>Semiconductor Detectors in the Future of Nuclear Medicine</u>, (edited by P.B. Hoffer, R.N. Beck and A. Gottschalk), the Society of Nuclear Medicine (1971).

"The Evaluation of CdTe for Gamma and X-Ray Spectrometers and Counters," Ch. XXIII-1, <u>Proceedings of the</u> <u>International Symposium on Cadmium Telluride</u>, (edited by P. Siffert and A. Cornet), Strasbourg, France (June 29-30, 1971).

Authored and Co-Authored Papers Published

"High Resolution Measurements of Gamma Rays from Neutron Inelastic Scattering" (with R.B. Day), Proceedings of the International Conference on the Study of Nuclear Structure with Neutrons, Antwerp (July 1965).

"Thermoelectric Control Apparatus for the Fabrication of Thick Lithium-Drifted Germanium Detectors" (with A.H. Greenwood), Rev. Sci. Instr. <u>36</u>, No. 8, 1209 (August 1965).

"Ionization Produced by Energetic Germanium Atoms within a Germanium Lattice" (with A.R. Sattler and F.L. Vook), Sandia Corporation, Albuquerque, NM, Phys. Rev. <u>143</u>, No. 2, 588 (1966).

"Further Evidence for Effective Nucleon Spin g-Factors" (with E.M. Bernstein and G.G. Seaman), Proceedings of the International Conference on Nuclear Physics, Gatlinburg, TN (September 1966).

"A Comparison of Rotational M1 Transition Rates Between High and Low Spin States," (with G.G. Seaman and E.M. Bernstein), Proceedings of the International Conference on Nuclear Physics, Gatlinburg, TN (September 1966).

"Trapping and Energy Resolution in Semiconductor Detectors" (with R.B. Day and G. Dearnaley), IEEE Trans. Nucl. Sci. NS-14, No. 1, 487 (1967).

"M1 transition Probabilities in the Odd Ytterbium Isotopes, ¹⁷¹Yb and ¹⁷³Yb," Phys. Rev. <u>151</u>, No. 3, 1004 (1966).

"A Ge(Li) Concentric Duode Spectrometer for Compton Suppression" (with R.E. Wood and O.H. Puckett), Bull. Am. Phys. Soc. <u>13</u>, 1, 51 (1968); IEEE Trans. Nucl. Sci. NS-15, 3, 397 1968).

"Electron Capture Decay of ²⁰⁷Bi L Subshell Fluorescence Yields and Coster-Kronig Transition Probabilities of Pb" (with P.V. Rao and R.E. Wood), Proceedings of Conference on the Electron Capture and Higher Order Processes in Nuclear Decays, Debrecen, Hungary, <u>2</u>, 22 (July 15-18, 1968).

"An Ultra High Resolution Ge(Li) Spectrometer for Singles and Coincidence X-Ray and Gamma-Ray Studies" (with P.V. Rao and R.E. Wood), Nucl. Instr. & Methods <u>69</u>, 310 (1968).

"Characteristics of an Ultra High Resolution Germanium Spectrometer for Singles and Coincidence X-Ray and Gamma-Ray Studies" (with P.V. Rao and R.E. Wood), IEEE Trans. Nucl. Sci. NS-16, No. 1, 36 (1968)

"Note on the Gamma Ray Spectrum from the ⁴⁷Ca Decay" (with R.E. Wood and P.V. Rao) Nucl. Phys. <u>A126</u>, 300 (1969).

"Gamma-Rays from the Decay of ⁷⁴Ge and ⁷⁷Ge" (with A. Ng, R.E. Wood, P.V. Rao and R.W. Fink), Phys. Rev. <u>176</u>, No. 4, 1329 (1968).

"Electron Capture Decay of ²⁰⁷Bi: L Subshell Fluorescence Yields and Coster-Kronig Transition Probabilities of Pb" (with P.V. Rao and R.E. Wood), Phys. Rev. <u>178</u>, No. 4, 1997 (1969).

"The Decay of Hg²⁰³: L Subshell Fluorescence Yields and Coster-Kronig Transition Probabilities of Thallium" (with R.E. Wood and P.V. Rao), Bull. Am. Phys. Soc., Miami Beach, <u>13</u>, 1369 (November 1968): Phys. Rev. <u>187</u>, No. 4, 1497 (1969).

"Clinical X-Ray Beam Analysis with Ultra High Resolution Ge(Li) with Si(Li) Detectors" (with R.E. Wood, P.V. Rao and R.H. Rohrer), presented at the Amer. Assoc. of Physicists in Med., Chicago (December 1968), AAPM Quarterly Bull. (December 1968).

"Evaluation of Some Large Area Silicon Junction Detectors for Cryogenic Applications" (with H.H. Nichols), Nucl. Appl. & Tech. <u>7</u>, 164 (1969).

"A Fano Factor Measurement for Silicon Using Low Energy Photons" (with P.V. Rao and R.E. Wood), Nucl. Instr. & Methods <u>76</u>, No. 1, 69 (1969).

"Further Evaluation of CdTe as a Gamma-Ray Detector" (with D.M. Edwards, R.E. Wood, P.V. Rao and H.H. Nichols), International Conference on Radioactivity in Nuclear Spectroscopy, Nashville (August 11-15, 1969).

"The K-Conversion Coefficient for the 37.15 keV M1 Transition in Sb¹²¹" (with K.S.P. Sastry, R.E. Wood and P.V. Rao), International Conference on Radioactivity in Nuclear Spectroscopy, Nashville (August 11-15, 1969).

"Orbital Electron Capture Decay of Dy¹⁵⁹" (with R.E. Wood and P.V. Rao), International Conference on Radioactivity in Nuclear Spectroscopy, Nashville (August 1969).

"-Vibrational and Ground-State Rotational-Band Mixing in ²³⁸Pu" (with R.E. Wood and P.V. Rao), Phys. Rev. C <u>2</u>, 1125 (September 1970).

"Fluorescence and Coster-Kronig Yields of L Subshells in Hg from the Decay of ¹⁹⁸Au and ²⁰⁴T1" (with R.E. Wood, R.V. Rao and V.O. Kostroun), Phys. Rev. C <u>2</u>, 592 (Aug 1970).

"Evaluation of CdTe as an Integral Gamma-Ray Counter" (with H.H. Nichols), Nuclear Applications & Technology <u>9</u>, No. 1, 112 (1970).

"Monte-Carlo Analysis of the Ge(Li) Detector Used in the Sum-Coincidence Mode" (with D.M. Walker), IEEE Trans. Nucl. Sci NS-17, <u>3</u>, 296 (1970). Presented at IEEE Scintillation and Semiconductor Counter Symposium, Washington, D.C. (March 11-12,1970).

"Coulomb Excitation of ¹¹³In and ¹¹⁵ In with Oxygen Ions" (with E.M. Bernstein and G.G. Seaman), Nucl. Phys. <u>A141</u>, 67 (1970).

"Electron Capture Decay of ¹⁸¹W: L Subshell Fluorescence and Coster-Kronig Yields in Ta" (with S. Mohan and R.W. Fink, Sch. Of Chem., Ga. I. of Tech., and R.E. Wood and P.V. Rao), Z. Physik <u>239</u>, 423-428 (1970).

"Neutron Activation Cross Sections for As, Br, Rb and Sr Isotopes at 14.4 MeV" (with P.V. Rao, R.E. Wood and R.W. Fink), Phys. Rev. C <u>3</u>, No. 2, 629-635 (1971).

"Absence of Radiative Component in L_2-L_3X Coster-Kronig Transition Probability" (with M.H. Chen, B. Crasemann, P.V. Rao and R.E. Wood), Phys. Rev. <u>16</u>, No. 4, 618 (1971).

"Medical Problems in Eye Tumor Identification" (with J.H. Larose, W.H. Jarrett, W.S. Hagler and R.E. Wood), Proceedings of the IEEE Trans. on Nucl. Sci., Part I, <u>18</u>, No. 1, 50-56 (February 1971).

"Energy Levels and Transitions in ¹⁹⁷Au from (n, n') Reaction" (with J.A. Nelson, V.R. Dave and R.M. Wilenzick), Phys. Rev. <u>C3</u>, No. 1, 307 (1971).

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