**Dennis M. Manos**

([dmanos@wm.edu](mailto:dmanos@wm.edu))

College of William and Mary

Vice Provost for Research, Graduate and Professional Studies

Director Applied Research Center at Newport News

Interim Director, William and Mary Research Institute

## EDUCATION

B.S. Case Institute of Technology, 1968,

Ph.D. Ohio State University, 1976,

U. S. Army Medical Field Service School, Medic (91A10), Medical Technologist (92B20), 1969-1971

**ACADEMIC POSITIONS**

Post-doctoral Fellow, Univ. of Toronto 1976-1978

Physicist Princeton Univ., 1980-1983

Research Physicist, Princeton Univ. 1983-1986

Principal Research Physicist, Princeton Univ.,1986-1992, 1987 at MRC (see below)

Group, Branch, and Division Head

Administrative Titles at DOE Princeton Plasma Physics Laboratory held concurrently with the above positions at Princeton University.

Visiting Research Scientist, Thomas Jefferson National Accelerator Laboratory 1992-2004,

Adjunct Professor of Physics, Hampton University 1993-1997

International Cooperative Professor, University of Electronic Science and Technology, Chengdu China, 1996-2000

CSX Eminent Professor, College of William and Mary

## INDUSTRY POSITIONS

Aerochem Research Laboratories, Staff Scientist, 1978-1980

Princeton Scientific Consultants, Inc.

Treasurer, 1981-1986

Vice-President 1988-1990

President 1990-1992, PSC

Technical Consultant to ~ 100 technical corporations

Materials Research Corporation, Orangeburg NY, Vice-President of Technology, 1987

Mentor Technologies Group, Consultant 1998-2002

Rosetta Venture Capital, Consultant 2002-2007

SMTS Corporation, Scientific Advisory Board, 2002-Present

Mason School of Business School Entrepreneurial Development Board, 2005-present

## Honors

Connaught Foundation Fellowship 1976-1978

CSX Chair, Applied Science and Physics 1992

Fellow of the American Vacuum Society of Am. Inst. Physics, 1994

NASA Goddard Space Flight Center, Group Achievement Award, 1996

Omicron Sigma Kappa Honor Society, Faculty Inductee 1996

**William and Mary service**

**Classroom Lecturer**

P101 Introduction to General Physics

P107 Physics for Life Sciences

P102H Introduction to General Physics – Honors Section

P451/452 Physics Undergraduate Research (list of supervised students below)\*

P800 Physics Dissertation , Thesis,

APSC150.01W Freshman Science Seminar – The Shape of Things

APSC 525 Introduction to Solid Surfaces and Interfaces

APSC 625 Plasma Physics for Device Processing

APSC 726 Solid Surfaces and Interfaces

APSC 784 Measurement Methods

APSC 790 Readings in Applied Science: Term course titles

Statistical Analysis of Time Series

Business for Technical Entrepreneurs

Fortran programming for problem solving

APSC 791 Topics in Applied Science: One term course titles:

Statistical Thermodynamics

Mathematical Methods in Physics and Engineering

Neural Network Methods for Plasma Probe Diagnostics

Optics

Particle-Surface Interactions

Passage of Ions through Matter

APSC 794 Internship

APSC 795 Research

APSC 800 Applied Science Dissertation, Thesis

Other teaching:

Undergraduate Research Supervision for more than 50 students, 18 as Thesis Committee Director

Graduate Research Thesis Supervision for 49 students, 16 M.S., 33 Ph.D. 14 as Ph.D. Committee Chair/co-Chair

Post-Doctoral Advisor for 11 fellows

Research Supervisor for 4 High School Lead Science Teachers

Applied Research Center, Summer Research Mentor for numerous HS students

**CONTRACTS, AND GRANTS as PI, co-PI, or Key Investigator at William and Mary 1992-2011**

***Aw. Date*** ***Dept*** ***Acct#*** ***Prop#*** ***S#*** ***Start*** ***End*** ***Agency*** ***$***

8/17/1992 331891 1993-021 1 7/1/1992 1/31/1993 SURA $9,000.00

11/25/1992 304051 1993-119 1 11/25/1992 12/31/1993 NASA $17,160.00

2/16/1993 372091 1993-213 1 2/16/1993 12/15/1993 SURA $53,136.00

2/17/1993 331971 1993-246 1 2/16/1993 9/30/1993 SURA $10,000.00

4/14/1993 372091 1993-270 1 2/16/1993 12/15/1993 SURA $20,144.00

9/27/1993 304141 1994-077 1 1/1/1994 12/31/1996 NASA $157,500.00

12/13/1993 381211 1994-159 1 12/1/1993 9/30/1994 SEMATEC $35,500.00

12/16/1993 301181 1994-095 1 1/1/1994 12/31/1994 NASA $68,919.00

12/17/1993 354391 1994-129 1 1/1/1994 12/31/1994 CIT $31,870.00

12/22/1993 382001 1994-215 1 1/1/1994 12/31/1994 VAPOWER $27,970.00

1/5/1994 301191 1994-093 1 1/5/1994 1/4/1995 NASA $224,145.00

3/22/1994 301201 1994-092 1 1/1/1994 12/31/1994 NASA $174,606.00

5/27/1994 304171 1994-396 1 6/1/1994 10/31/1994 NASA $7,115.00

6/14/1994 304181 1994-420 1 7/1/1994 10/31/1995 NASA $100,000.00

6/30/1994 372341 1994-448 1 6/15/1994 10/31/1996 SURA $12,302.00

8/15/1994 304131 1995-041 1 1/1/1995 9/30/1995 NASA $45,000.00

8/25/1994 304131 1995-051 1 1/1/1995 9/30/1995 NASA $2,000.00

9/20/1994 332361 1995-005 1 9/1/1994 9/30/1995 NIST $5,661.00

10/11/1994 304201 1995-098 1 10/15/1994 9/30/1995 NASA $84,535.00

10/19/1994 301191 1995-125 1 1/5/1994 12/31/1995 NASA $42,695.00

10/27/1994 332361 1995-133 1 10/1/1994 10/31/1995 NIST $65,100.00

12/16/1994 301201 1995-193 1 3/15/1994 12/31/1994 NASA $33,258.00

12/20/1994 304211 1995-189 1 1/1/1995 3/31/1995 NASA $24,124.00

12/27/1994 382001 1995-187 1 1/1/1995 12/31/1995 VAP/CIT $45,620.00

12/28/1994 301251 1995-081 1 1/1/1995 12/31/1996 NASA $89,337.00

12/28/1994 301241 1995-080 1 1/1/1995 12/31/1996 NASA $164,228.00

1/9/1995 304221 1995-214 1 1/1/1995 10/31/1997 NASA $89,596.00

1/12/1995 304171 1995-213 1 11/1/1994 10/31/1995 NASA $26,342.00

1/18/1995 304131 1995-227 1 5/1/1995 8/23/1995 NASA $40,000.00

1/20/1995 301261 1995-079 1 1/20/1995 1/19/1997 NASA $155,243.00

1/27/1995 355091 1995-238 1 1/1/1995 12/31/1995 CIT $25,000.00

2/8/1995 301201 1995-085 1 1/1/1995 12/31/1996 NASA $204,602.00

3/6/1995 301181 1995-279 1 1/1/1994 6/30/1995 NASA $13,128.00

3/20/1995 304201 1995-287 1 10/15/1994 9/30/1995 NASA $11,519.00

3/29/1995 304131 1995-300 1 8/24/1994 12/31/1995 NASA $44,924.00

3/29/1995 304211 1995-299 1 1/1/1995 3/31/1995 NASA $3,003.00

3/30/1995 382121 1995-294 1 3/30/1995 11/30/1995 SEMATEC $24,000.00

6/9/1995 304131 1995-397 1 4/16/1995 4/15/1996 NASA $40,000.00

6/22/1995 304131 1996-025 1 4/16/1995 4/15/1996 NASA ($40,000.00)

8/7/1995 382171 1996-045 1 8/7/1995 8/6/1996 DUPONT $50,000.00

8/22/1995 304131 1996-054 1 1/1/1995 4/15/1996 NASA $40,000.00

8/29/1995 304201 1996-065 1 10/1/1995 9/30/1996 NASA $90,893.00

9/14/1995 332361 1996-050 1 9/25/1995 10/31/1996 NIST $75,110.00

9/15/1995 311111 1994-356 1 10/1/1995 9/30/1999 NSF $239,928.00

9/25/1995 304211 1996-092 1 1/1/1995 3/31/1995 NASA ($2,645.00)

10/1/1995 332781 1996-129 1 10/1/1995 9/30/1996 SURA $20,016.00

10/4/1995 332721 1995-284 1 9/2/1995 8/31/1996 STRESS $50,000.00

12/12/1995 304221 1996-168 1 1/18/1996 1/17/1997 NASA $82,504.00

1/15/1996 332781 1996-208 1 2/1/1996 9/30/1996 SURA $13,344.00

2/27/1996 301261 1996-217 1 1/20/1996 1/19/1998 NASA $87,654.00

3/6/1996 304131 1996-268 1 4/16/1996 9/15/1996 NASA $62,000.00

3/15/1996 301301 1996-111 1 3/15/1996 3/14/1998 NASA $165,334.00

7/24/1996 301331 1996-329 1 7/24/1996 6/30/1998 NASA $44,124.00

7/31/1996 382171 1997-025 1 8/7/1996 8/1/1997 DUPONT $50,000.00

8/1/1996 304131 1997-040 1 8/1/1996 2/28/1997 NASA $64,000.00

8/6/1996 304201 1997-045 1 10/1/1996 12/31/1996 NASA $19,843.00

8/20/1996 333092 1997-373 1 8/1/1996 7/31/1997 VCES $26,615.00

9/5/1996 304271 1997-058 1 9/16/1996 8/5/1998 NASA $41,829.00

10/1/1996 332781 1997-119 1 10/1/1996 9/30/1997 SURA $40,032.00

11/5/1996 372931 1997-071 1 10/15/1996 8/15/1997 VSGC $15,000.00

12/6/1996 372961 1997-172 1 12/15/1996 1/31/1997 EWI $7,500.00

1/28/1997 304221 1997-252 1 1/18/1997 7/31/1997 NASA $67,433.00

1/28/1997 304201 1997-254 1 1/28/1997 NASA ($31,563.00)

3/4/1997 333281 1997-296 1 1/31/1997 1/31/1999 STRESS $150,389.00

4/30/1997 301332 1997-320 1 1/24/1997 12/31/1997 NASA $30,567.00

5/1/1997 373031 1997-261 1 5/1/1997 4/30/1999 VSGC $10,000.00

5/2/1997 373061 1997-367 1 5/1/1997 8/9/1998 VSGC $8,500.00

5/19/1997 373511 1999-037 1 8/25/1998 8/24/2000 LUCE $50,000.00

5/24/1997 301301 1997-201 1 3/15/1997 3/14/1998 NASA $6,525.00

7/11/1997 333421 1996-382 1 7/1/1997 10/31/1997 ASM $23,000.00

7/28/1997 382171 1998-037 1 8/1/1997 12/31/1998 DUPONT $50,000.00

10/1/1997 332781 1998-151 1 10/1/1997 9/30/1998 SURA $41,712.00

1/7/1998 373331 1997-161 1 10/1/1997 12/30/1998 VSGC $6,500.00

3/31/1998 333092 1998-167 1 8/1/1996 7/31/1998 VCES $27,615.00

3/31/1998 333092 1998-333 1 8/1/1996 7/31/1997 VCES ($4,820.00)

8/15/1998 350892 1999-324 1 9/15/1998 9/14/1999 CIT $90,000.00

8/18/1998 350891 1998-285 1 9/15/1998 9/14/1999 CIT $115,000.00

8/18/1998 350894 1999-326 1 9/15/1998 9/14/1999 CIT $22,500.00

8/18/1998 350893 1999-325 1 9/15/1998 9/14/1999 CIT $22,500.00

9/9/1998 350901 1999-044 1 9/1/1998 3/31/1999 CIT $20,000.00

10/1/1998 332781 1999-145 1 10/1/1998 9/30/1999 SURA $20,856.00

10/15/1998 382471 1998-359 1 9/1/1998 12/31/1999 SOLAREX $13,060.00

10/30/1998 332781 1999-216 1 10/1/1998 9/30/1999 SURA ($5,214.00)

2/1/1999 333891 1998-015 1 1/1/1999 10/31/1999 ODU $76,362.00

2/9/1999 333901 1999-285 1 2/9/1999 12/31/1999 VSGC $8,000.00

5/25/1999 382531 1999-299 1 5/1/1999 6/30/2000 CORNING $62,310.00

5/25/1999 334041 1999-403 1 12/1/1998 11/30/1999 ODU $14,580.00

6/30/1999 350894 1999-326 2 9/15/1998 6/30/2000 CIT $45,000.00

6/30/1999 350891 1998-285 2 9/15/1998 6/30/2000 CIT $226,000.00

6/30/1999 350892 1999-324 2 9/15/1998 6/30/2000 CIT $184,000.00

6/30/1999 350893 1999-325 2 9/15/1998 6/30/2000 CIT $45,000.00

9/28/1999 301501 2000-045 1 10/1/1999 9/30/2002 NASA $25,000.00

12/8/1999 334041 1999-403 2 12/1/1999 11/30/2000 ODU $14,580.00

12/20/1999 333891 1998-015 2 1/1/1999 12/31/1999 ODU $15,273.00

2/1/2000 334261 2000-115 1 2/1/2000 1/31/2001 AFOSR $149,940.00

3/3/2000 301501 2000-045 2 3/3/2000 9/30/2002 NASA $149,059.00

6/12/2000 350891 1998-285 3 7/1/2000 6/30/2001 CIT $219,000.00

6/23/2000 350893 1999-325 3 7/1/2000 6/30/2001 CIT $40,000.00

6/23/2000 350892 1999-324 3 7/1/2000 6/30/2001 CIT $166,000.00

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11/21/2000 334261 2000-115 2 12/1/2000 12/31/2002 AFOSR $149,940.00

12/5/2000 301501 2000-045 3 12/4/2000 9/30/2002 NASA $150,000.00

12/20/2000 334041 1999-403 3 12/1/2000 11/30/2001 ODU $14,580.00

4/20/2001 353471 2002-093 1 5/21/2001 8/24/2001 VMEC $6,500.00

5/4/2001 334861 2001-249 1 3/7/2001 6/30/2002 SURA $44,487.50

6/1/2001 374381 2001-238 1 7/1/2001 6/30/2002 VSGC $5,000.00

6/14/2001 350893 1999-325 4 7/1/2001 6/30/2003 CIT $28,468.00

6/14/2001 350894 1999-326 4 7/1/2001 6/30/2003 CIT $28,468.00

6/14/2001 350892 1999-324 4 7/1/2001 6/30/2003 CIT $125,464.00

6/14/2001 350891 1998-285 4 7/1/2001 6/30/2003 CIT $152,600.00

8/25/2001 335021 2002-086 1 8/25/2001 10/31/2001 SURA $4,124.99

10/25/2001 335021 2002-086 2 11/1/2001 11/30/2001 SURA $1,833.33

11/6/2001 353691 2002-270 1 11/1/2001 12/31/2002 CTRF $1,080,790.0

11/13/2001 301501 2000-045 4 11/13/2001 9/30/2002 NASA $2,500.00

11/30/2001 335021 2002-086 3 12/1/2001 10/31/2002 SURA $20,166.63

2/21/2002 335151 2/1/2002 7/31/2004 UNC-C $217,939.00

10/4/2002 335441 10/8/2002 10/7/2003 ONR $113,214.00

10/20/2002 335021 11/1/2002 10/31/2003 SURA $21,996.00

5/22/2002 354031 5/28/2002 8/3/2002 VMEC $7,000.00

7/19/2002 335361 7/8/2002 10/7/2002 ONR $35,000.00

11/21/2002 353691 11/1/2001 4/30/2003 CTRF $541,958.00

5/7/2002 374381 7/1/2002 6/30/2003 VSGC $5,000.00

7/13/2002 334861 5/25/2002 6/30/2003 SURA $20,000.00

4/1/2003 335561 6/1/2003 11/30/2004 ONR $1,974,000.00

1/8/2003 334861 3/7/2001 6/30/2002 SURA $20,000.00

6/3/2003 354361 5/25/2003 8/24/2003 VMEC $7,500.00

5/14/2003 335721 4/1/2003 9/30/2003 INCOGEN $49,975.00

6/18/2003 334861 3/7/2001 9/30/2003 SURA $6,000.00

11/17/2003 334861 3/7/2001 9/30/2003 SURA ($694.76)

1/23/2003 353691 11/1/2001 10/31/2003 CTRF $541,958.00

10/2/2003 335021 11/1/2002 10/31/2003 SURA ($4,124.25)

5/15/2003 374381 6/1/2003 6/30/2004 VSGC $5,000.00

12/2/2003 334861 4/14/2004 9/30/2004 SURA $39,367.00

10/2/2003 335441 10/8/2003 10/7/2004 ONR $116,044.00

4/7/2004 354641 5/25/2004 8/24/2004 UVA $10,450.00

4/14/2004 336161 1/3/2005 1/3/2005 SURA $39,367.00

6/10/2004 336301 4/1/2004 8/31/2005 Incogen $ 160,272.00

8/15/2005 336301 4/1/2004 8/31/2005 Incogen $ 198,187.00

4/1/2005 336161 4/14/2004 6/30/2006 SURA $ 48,383.00

4/27/2006 336162 5/01/2006 8/31/2006 SURA $ 27,299.00

8/28/2006 336162 5/1/2006 12/24/2006 JEFSCI $ 36,087.00

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 2007 REVIEW LINE \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

9/1/2005 336881 6/1/2005 EXT./2007 ONR $1,299.830.00

7/1/2006 210002 7/1/2006 6/30/2007 CoVA-BioInit $ 800,000.00

12/18/06 736162 1/08/2007 6/30/2007 $ 31,081.00

5/23/2007 JSA 07-C1073 5/23/2007 5/22/2009 NavSea /JSA $ 829.500..00

07/01/02 113930 NA 06/30/08 SOV MPRP $ 1,619,000.00

07/01/02 111500 NA 06/30/08 SOV ARC $ 1,017,172.00

07/01/06 113930 06/30/08 06/30/08 SOV BMRBME $ 400,000.00

07/01/08 113930 06/30/09 SOV BMRBME $ 75,000.00

07/01/09 113930 06/30/10 SOV MPRP $ 171,400.00

07/01/09 111500 06/30/10 SOV ARC $ 520,150.00

07/01/09 113930 06/30/10 SOV BMRNME $ 75000.00

09/04/2009 713787 05/01/2010 StatoilHydro PhaseI $ 1,000,000.00

\*05/01/2010 713787 06.30/2011 StatoilHydro Phase II $ 2,000.000.00

\*05/01/2010 \*DE-EE0003146 05/01/201 DOE Sustainable Energy $ 500,000.00

Grants and Contracts Total Yrs 1992-2011 $22,076,000.

**PROFESSIONAL SERVICE**

**Standing Committees:**

CWM Agency Risk Management and Internal Control Standards Oversight Committee, 2007- present

CWM Emergency Management Team, 2007-present

Representative, VA Higher Ed Preparedness Consortium 2008-present

VIMS-Industry Consortium, 2002-present

CWM Strategic Planning Steering Committee, Financial Modeling, 2008-present

Faculty Committee on University Priorities, 2004-present

Advisory Council on Space Management, 2004-present

Faculty Research Committee, Administrator, 2004-present

Information Technology Steering Committee, 2009-present

President’s Delegate URA Executive Advisory Board, 2009 - present

President’s Delegate SURA Executive Advisory Board, 2009 - present

President’s Delegate, Virginia Space Grant Board of Director’s, 2004-present

Representative, COVA 25 by 25 Energy Initiative 2009-present

Research Integrity Officer, ORI Delegate, 2004-present

Principal Research Compliance Officer, 2004-present

Institutional Animal Use and Care, ex off.,. Inst. Official, 2004-present

Institutional Biosafety Committee, voting ex off, Inst. Official, ex off., 2004- present

Protection of Human Subjects Committee, 2004- present

Radiation Safety Committee, ex. off. Inst. Official, 2004- present

Research OSHA Safety Liaison 2004-present

**Current and Past Ad Hoc and Rotating Assignments**

Co-chair Provost Ad Hoc Committee of F&A Distribution, 2010-2011

Governor’s Joint Commission on Science and Technology,

JCOTS Subcommittee on Energy, 2010-2011

JCOTS Subcommittees on Nanotechnology and Computational Science 2004- 2008

Governor’s Virginia Research and Technology Advisory Committee, 2004- 2009

Chair, Intellectual Property Sub-Committee, Governor’s VRTAC, 2004-2005

Member, Governor’s Working Group on Commonwealth Research, VRTAC 2007-2008

Committee for Environment Science and Policy Planning, 2009-2010

Task Force on Digital Imaging 2006-2010

CWM, Ethics Committee, 2007- 2009

Chair, Committee on Graduate Student Compensation 2006- 2007

Representative, Virginia Microelectronics Consortium, Operations Committee, 1997-2007

Representative, Virginia Microelectronics Consortium, Executive Committee, 2005-2007

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* 2007 Review line above \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Swem Library Committee 1996-2002

Faculty Compensation Board 2001-2004

Director, Technology Innovation Center, Center for Innovative Technology, 1998-2003

Representative, INanoVA, Consortium for Nanotechnology in Virginia, 2001-2005

Honors and Interdisciplinary Studies 1993-2004

Charles Center - Rhodes Scholarship Review Committee, 1994- 2004

Dean’s Advisory Committee, 1992-2000

Representative Virginia Consortium for Engineering and Science, 1996-2002

Representative, Virginia Space Grant Consortium, 1992-present, Chair, 1996- 2006

Representative, Peninsula Area Technology Development Committee,1992-1993

Director William and Mary Applied Science Program, 1992-1995

Chair, Applied Science Department, William and Mary, 1995-2000

Center Director, Applied Research Center at Newport News, 1998- present

Chair, Applied Science Admission Committee 1992-1995

Applied Science Academic Progress Committee, 1992-2006

Applied Science Space Committee, 1992-1995

Applied Science Faculty Search committees, ad hoc, 1993-2004

Physics Department, Faculty Search Committees, 1992-2004

Physics Dept. Appointments Committee, 1994-1998

Physics Dept. Evaluation Committee on Shops, Chair, 1994-1995

Princeton Univ. Plasma Laboratory (PPPL) Public Spokesperson 1985-1992

PPPL Emergency Response Spokesperson 1990-1992

US DoE DT Materials Physics Task Group 1986-1992, Chairman 1990-1992

US DoE High Heat Flux Materials Task Group 1984-1990

US DoE Evaluation Committee on CO2 and Global Warming 1990

US DoE Representative to International Thermonuclear Experimental Reactor, 1990-1992

Arbitrator, Princeton University Grievance Committee, 1990-1992

Chair, Science on Saturday, PPPL DoE Community Education Program 1990-1992

CEBAF-CETAC Steering Committee, 1992-1995

CEBAF Laser Processing Consortium Steering Committee 1994-present

Senior Editor AIP Books Series, 1992-1998

Senior Editor, AIP Conference Proceeding Series ,1992-1994

AVS Program Committee 1985-1993, Vice Chair, 1989, Chair 40th Anniversary Year, 1993

AIP Liason Committee 1989-1990

AVS Publications Committee, Vice-Chair 1992-1995

AVS Plasma Diagnostic Committee, Chair, 1990

AVS Associate Editor J. Vac. Sci. Technol B,1998-2000

**PRINT PUBLICATION BIBLIOGRAPHY**, abbreviated listing, in chronological order (\* indicates a contribution to an edited or curated print or online scientific archive, reviewed by one or more qualified referees)

\*1) Crossed molecular beam study of chemiluminescent reactions of Group 111b atoms with O2 with J.M. Parson, J. Chem. Phys. vol 63, 3575-85, (1975).

 \*2) Direct Observation of the Effect of Enhanced Vibrational Excitation on Fragmentation in a Mass Spectrometer with F.E. Bartoszek and J.C. Polanyi, J. Chem. Phys. vol. 67, 3395 (1977).

 \*3) Chemiluminescent Reactions of Group IIIb Atoms with O2:Spectral Simulations and Extended Energy Dependence with J.M. Parson, J. Chem. Phys. vol. 69, 231 (1978).

 \*4) Effect of changing reagent energy.X. /vibrational threshold energies for alternative reaction paths HF(v)+D to F+HD and to H+DF with F.E. Bartoszek and J.C. Polanyi, J. Chem. Phys. vol 69, 933-5 (1978).

 \*5) High Temperature Fast Flow Reactor Observations on Chemiluminescent Sn-Oxidizer Reaction with A. Fontijn, J. Chem. Phys. vol. 72, 416 (1980).

 \*6) PDX Experimental Results with D. Meade et. al., Proc. 8th Int. Conf. on Plasma Physics and Controlled Nuclear Fusion Research, Brussels, July (1980); Princeton Plasma Physics Laboratory Report PPPL-1740 (January 1980).

 7) Neutral Beam Heating Results on PDX with R.J. Hawryluk et. al., PPPL-IM-May 1981 (PPPL reports on request at archive : /www.pppl.gov/techreports.cfm

\*8) PDX Experimental Results with D. Meade et. al., Nuclear Fusion Supplement vol. 1, 665-77 (1981).

 1

 \*9) Recent PDX Results with M.G. Bell et. al., Proc. 10th European Conf. on Controlled Fusion and Plasma Physics, 21-39 (September 1981).

  \*10) Calorimeter Probe Studies of PDX and PLT with R. Budny, T. Satake, and S.A. Cohen, J. Nucl. Mater. vol. 111 & 112, 130 (1982).

 \*11) Changes in Tokamak Plasma Properties During Impurity Injection with S.A. Cohen et. al., J. Vac. Sci. Technol. vol. 20, 1226 (1982).

 \*12) Confinement Studies with Neutral Beam Injection on PDX and PLT with R. J. Goldston et. al., Proc. 3rd Joint Varenna-Grenoble International Symposium on Heating in Toroidal Plasmas, Grenoble, France (1982).

 \*13) Deuterium Flux Measurements in the Edge Plasmas of PLT and PDX During Auxiliary Heating Experiments with W.R. Wampler, S.A. Cohen, H.F. Dylla, and C.W. Magee, J. Vac. Sci. Technol. vol. 20, 1234 (1982).

 \*14) Deuterium Implantation in the First Wall Candidate Materials by Exposure in the Princeton Large Torus with J. Chang and A. Tobin, J. Nucl. Mater.vol. 111 & 112, 168 (1982).

 15) High Power ICRF and ICRF Plus NB Heating on PLT with D.Q. Hwang et. al.,Proc. 9th Int. Conf. on Plasma Physics and Controlled Nuclear Fusion Research,Baltimore (1982).

 \*16) Impurity Levels and Power Loading in the PDX Tokamak with High Power Neutral Beam Injection with R.J. Fonck et. al., J. Nucl. Mater. vol. 111 & 112, 343 (1982); also as Princeton Plasma Physics Laboratory Report PPPL-1932 (1982).

  \*17) Ion Heating with High Power Perpendicular Neutral Beam Injection in PDX with R.J. Hawryluk et. al., Phys. Rev. Lett. vol. 49, 326 (1982).

 \*18) Laboratory Study of the PDX/PLT Laser Blow-Off Trace Element Injector with D. Ruzic, R. Moore, and S.A. Cohen, J. Vac. Sci. Technol. vol. 20,1230 (1982).

 19) MHD Stability Properties of PLT Discharges During High Power ICRF Heating with J.R. Wilson et. al., Int. Conf. on Plasmas, Goteburg, Sweden (1982).

 20) Neutral Beam Heating Experiments on PDX with D. Johnson et. al., Proc. 9th Int. Conf. on Plasma Physics and Controlled Nuclear Fusion Research, Baltimore (1982).

 \*21) Secondary Electron Yields of Carbon Coated and Polished Stainless Steel with D. Ruzic, R. Moore, and S.A. Cohen, J. Vac. Sci. Technol. vol. 20, 1313 (1982).

 \*22) Surface Modifications of the PLT Lower Hybrid Waveguides to Improve Operations with J. Timberlake et. al., J. Vac. Sci. Technol. vol. 20, 1309 (1982).

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