Dennis M. Manos

(dmanos@wm.edu)

Position: Vice-Provost, College of William and Mary, and
Director Applied Research Center at Newport News, and
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,
Staff 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 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, 1992-present,

INDUSTRY POSITIONS:

Aerochem Research Laboratories, Staff Scientist, 1978-1980

Princeton Scientific Consultants, Inc.

Treasurer, 1981-1986,

Vice-President 1988-1990,

President 1990-1992, PSC

Consultant to ~ 100 technical corporations.

Materials Research Corporation, Vice-President of Technology, 1987

Mentor Technologies Group, Consultant 1998-2002

Rosetta Venture Capital, Consultant 2002-2007

SMTS Corporation, Scientific Advisory Board, 2002-present

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 1994,
NASA Goddard Space Flight Center, Group Achievement Award, 1996
Omicron Sigma Kappa Honor Society, Faculty Inductee 1996

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 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

Undergraduate Research Supervision
Thesis Committee as Director

Robert Bassett	Winthrop Brown
Ryan Bubb	James Buckingham
Lisa DeJong	Timothy Finegan
Adam Friedman*	Evin Taft Grano
Michael Johnson*	Miles Johnston*
Bon Woo Lee	Truong Pham
Anthony Richardella	Linton Wells III
Phillip Williams	Joshua Waterfall
Jason Hoffman	Jack Simonsen

Mentor: Research Experience for Undergraduates, or early research project advisor, or thesis committee member

Thomas Walls	Emily Woodward	Adam Holman
Josh Waterfall	Ruth Van de Water	Kelley Sullivan
David Leichtman	Gregory Buchholz	James Buckingham
Jason Hoffman	Anthony Holincheck	Laurel Averett
Patrick Roberts	Amoreena Ranck	Edward Cox
Bridgette Finn	Andrew Cady	Wendy Vogan
Emily Chapman		Gregory Benson
Brooke Stutzman		Jason Hoffman
Jennifer Weisman (Chemistry)		Geoffrey David (Chemistry)

Edith Bowers (Chemistry)
Anthoney Czer Lim (Biology)
Nicholas Kain (CWM-ARC)
Timothy van Drew (VCU- VMEC)
Timothy Schaefer (VT-VMEC)
Chandler Amiss
Kristina Hoke (Biology)
Laura Park (Biology)
Michelle Kennedy (VaTech-ARC)
Donald Bitner (ODU-VMEC)
Erin Brinch (TNCC)
Charles Tahan

High School Teacher Summer Research Michelle Herzer Edward Nartowitz Richard Hodge Ahmed Halim

Graduate Research and Thesis Supervision

Ph.D. Completed:

Agus Ananda
Pierre Emeric
James McAdoo
Christopher Nichols
Joseph Ametepe
Walter Silva
Xianmin Tang
Thomas Venhaus
Lingling Wu
Nimel Theodore
Sheng Peng
Mingyao Zhu
Kun Hou

Ph.D. reader or co-advisor

David Ruzic
John Cuthbertson
David Moore
Douglas Baker
Minzhu Li
Eugene Malyrenko
Dasha Malyrenko
Andy Glen
Dianne Evans
Erik Keilin
Sheeba Ahmed
George Andrews
Randy Wojick
Wendy Vogan
Xin Zhao
Haijian Chen
Steven Richardson
Ronald Quinlan (in progress, expected 2008)
Michael Bagge-Hansen (in progress, expected 2012)

Masters Program Mentor

Jesse Diggs
Chaoyu Liu
David Hays (MBA Field Studies)
James Hagy (MBA Field Studies)
Lawrence Mtetwa

Amy Wilkerson
Ping Tang
Brooks Childers
Lisa August
Johnny Tang
Shannon Arnold
Joy Bryant
Robert Perez
Meghan Goldman
Christine Hopkins
Rudy Werlink

Post-doctoral trainees:
Douglas Baker
Dasha Malyarenko
Hapreet Sanghera
Benjamin French
Xin Zhao
Nimel Theodore
Benjamin French
Sigen Wang
Jianjun Wang
Mingyao Zhu
Haijian Chen

CONTRACTS, AND GRANTS as PI, co-PI, or co-Investigator 1992-2001

Aw. Date	*Dept*	*Acct#*	*Prop#*	*S#*	*Begin*	*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
6/23/2000	350894	1999-326	3	7/1/2000	6/30/2001	CIT	$40,000.00
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
Grants and Contracts				Total	Yrs	1992-2001	$7,500,949.

Contracts and Grants as PI, co-PI, or co-I 2002-2006

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
9/1/2005	336881	6/1/2005	12/31/2006	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	06/30/**	06/30/08	SOV MPRP	$ 1,619,000.00
07/01/02	111500	06/30/**	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
Grants and Contracts		Total	Yrs 2002-2007		$7,198,000.
Grants and Contracts		Total	Yrs 1992-2007		$17,810,000

PROFESSIONAL SERVICE

Governor's Joint Commission on Science and Technology,
Subcommittees on Nanotechnology and Computational Science 2004- present
Governor's Virginia Research and Technology Advisory Committee, 2004- present
Chair, Intellectual Property Sub-Committee, Governor's VRTAC, 2004-2005
Member, Governor's Working Group on Commonwealth Research, 2007-2008
CWM Agency Risk Management and Internal Control Standards Oversight Committee, 2007- present
CWM Emergency Management Team, 2007-present
CWM, Ethics Committee, 2007- present
Faculty Committee on University Priorities, 2004-present
Advisory Council on Space Management, 2004-present
Faculty Research, 2004-present
Task Force on Digital Imaging 2006-present
Institutional Animal Use and Care, 2004-present
Institutional Biosafety Committee, 2004- present
Protection of Human Subjects Committee, 2004- present
Radiation Safety Committee, 2004- present
Chair, Ad Hoc Committee on Graduate Student Compensation 2006- 2007
Representative, Virginia Microelectronics Consortium, Operations Committee, 1997-2007
Representative, Virginia Microelectronics Consortium, Executive Committee, 2005-2007
Swem Library Committee 1996-2002
Faculty Compensation Board 2001-2004

Director, Technology Innovation Center, Center for Innovative Technology, 1998-2003
Representative, INanoVA, Consortium for Nanotechnolgy in Virginia, 2001-2005
Honors and Interdisciplinary Studies 1993-2004
Charles Center - Rhodes Scholarship Review Committee, 1994- 2004
Dean's Advisory Committee, 1992-2000
College 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, 1993-2000
Physics Dept. Appointments Committee, 1994-1998
Physics Dept. Ad hoc 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 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, 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

Publications

Refereed

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. Additional 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., Nuclear Fusion Supplement vol. 1, 665-77 (1981).
7. Calorimeter Probe Studies of PDX and PLT with R. Budny, T. Satake, and S.A. Cohen, J. Nucl. Mater. vol. 111 & 112, 130 (1982).
8. Changes in Tokamak Plasma Properties During Impurity Injection with S.A. Cohen et. al., J. Vac. Sci. Technol. vol. 20, 1226 (1982).

9. 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).
10. 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).
11. 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).
12. Ion Heating with High Power Perpendicular Neutral Beam Injection in PDX with R.J. Hawryluk et. al., Phys. Rev. Lett. vol. 49, 326 (1982).
13. 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).
14. 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).
15. Surface Modifications of the PLT Lower Hybrid Waveguides to Improve Operations with J. Timberlake et. al., J. Vac. Sci. Technol. vol. 20, 1309 (1982).
16. Totally Optical Ambient NMHC Monitor with H. Volltrauer and J. Allen, Aerochem Research Labs Final Report P-423, November (1982).
17. Effect of Molecular Structure on Soot Formation with H.F. Calcote, Combustion and Flame vol. 49, 289 (1983).
18. High-beta experiments with neutral-beam injection on PDX with D. Johnson et. al., Nucl. Fusion. Suppl. vol. 1, 9-26 (1983).
19. High-power ICRF and ICRF plus neutral-beam heating on PLT with D. Hwang et. al., Nucl. Fusion Suppl. vol. 2, 3-15 (1983).
20. Initial Results From the Scoop Limiter Experiment in PDX with R. Budny et. al., J. Nucl. Mater. vol. 121, 294 (1984); also as Princeton Plasma Laboratory Report PPPL-2061, August (1983).
21. Measurements of Energetic Ion Losses from PLT During ICRF and NB Heating with R. Kaita et. al., PPPL-IM-May (1983).
22. PDX Experimental Results in FY82 with S.M. Kaye et. al., Princeton Plasma Physics Laboratory Report PPPL-2016, 45 pp. (August 1983).
23. Perturbation of Tokamak Edge Plasma by Laser Blow-Off Impurity Injection with R. Budny et. al., J. Vac. Sci. Technol. A. vol. 1, 837 (1983).
24. Photography of the PLT Plasma During Impurity Injection with J. Timberlake and S. Cohen, J. Vac. Sci. Technol. A vol. 1, 841 (1983).
25. Plasma Edge Studies Using Carbon Resistance Probes with W.R. Wampler, J. Vac. Sci. Technol. A. vol. 1, 827 (1983).
26. Plasma Rotation in the PDX Tokamak with K. Brau et. al., Nuclear Fusion vol. 23, 1643-55 (1983); also as Princeton Plasma Physics Laboratory Report PPPL-2013, June (1983).
27. Study of High Beta Pressure Driven Modes in PDX with K. McGuire et. al., Phys. Rev. Lett. vol. 50, 891-5 (1983).

28. TFTR Prototype Electrostatic Calorimeter Probe Head with R. Budny and S.A. Cohen, J. Vac. Sci. Technol. A. vol. 1, 845 (1983).
29. X-Ray Spectroscopy on Tokamaks with S. von Goeler et. al., Diagnostics for Fusion Reactor Conditions EUR 8351-1 EN, published by Commission of the European Communities; also as Princeton Plasma Physics Laboratory Report PPPL-2013, June (1983).
30. Attainment of high Confinement in Neutral Beam Heated Divertor Discharges in the PDX Tokamak with S.M. Kaye et. al., J. Nucl. Mater. vol. 121, 115-65 (1984).
31. Examination of the Damage to a Graphite Probe Cap Exposed to RF Heating in PLT Plasmas with T. Bennett et. al., J. Vac. Sci. Technol. vol A2, (1984).
32. High Energy and particle confinement times in PDX scoop discharges with R. Budny et. al., J. Nucl. Mater. vol. 128-129, 425-29 (1984).
33. H-Mode Studies in PDX with R.J. Fonck et. al., Princeton Plasma Physics Laboratory Report PPPL-2118, July (1984).
34. Initial limiter and getter operation in TFTR with J.L. Cecchi et. al., J. Nucl. Mater vol. 128-129, 1-9 (1984).
35. Initial Results from the scoop limiter experiment in PDX with R. Budny et. al., J. Nucl. Mater. vol. 121, 294-303 (1984).
36. Measurements of Low Energy Neutral Hydrogen Efflux During ICRF Heating with S.A. Cohen et. al., Nuclear Fusion vol. 24, 1490-5 (1984).
37. Particle and Heat Flux Measurements in PDX Edge Plasmas with R. Budny, J. Nucl. Mater. vol. 121, 41-7 (1984); Princeton Plasma Physics Laboratory Report PPPL-2061, December (1983).
38. Plasma Materials Interactions during Rf Experiments in Tokamaks with S.A. Cohen et. al., J. Nucl. Mater. vol. 128-129, 280-291 (1984).
39. PLT Ion Cyclotron Range of Frequencies Heating Program with J. Hosea et. al., Princeton Plasma Physics Laboratory Report PPPL-2117, September (1984).
40. The Effects of Ion Cyclotron RF Heating on plasma edge conditions in PLT, with P.L. Colestock, S.A. Cohen, et. al., Journal Vac Sci Technol., A3, p1211-1217, (1984)
41. Preparation and Analysis of Carbon Foils Implanted with 100 uCi Tritium with J. Timberlake et. al., J. Vac. Sci. Tecnol. vol A2, 645 (1984).
42. The PLT Rotating Limiter Experiment with S.A. Cohen et. al., J. Nucl. Mater vol. 128-129, 430-3 (1984); also as Princeton Plasma Physics Laboratory Report PPPL-2123, July (1984).
43. Totally Optical Technique for Monitoring Ambient Non-Methane Hydrocarbons with Hermann N. Voltrauer et. al., EPA Final Report and NTIS Tech Notes, (September 1984).
44. Acceleration of Beam Ions During Major-Radius Compression in the Tokamak Fusion Test Reactor with K.L. Wong et. al., Phys. Rev. Lett. vol. 55,2587-2590 (1985); also as Princeton Plasma Physics Laboratory Report PPPL-2247,September (1985).
45. Confinement studies in TFTR with M. Murakami et. al., Fusion Technol. vol. 8, 657-63 (1985).
46. Confinement Studies of Neutral Beam Heated Discharges in TFTR withM. Murakami et. al., Plasma Physics and Controlled Fusion vol. 28, No. 1A,17-27, (1986); Princeton Plasma Physics Laboratory Report PPPL-2285, November (1985).
47. Diagnostics for Process Plasmas with H.F. Dylla, Mat. Rec. Soc. Symp. Proc. vol. 38, 3 (1985).
48. Q=1 MHD Activity in PLT Studied with Aluminum Injection as a Diagnostic Tool with A. Compant La Fontane et. al., Plasma Physics and Controlled Fusion vol. 27, 229-43 (1985).

49. A Novel Modification of Toroidal Plasma Device to Produce Low Energy Neutral Beams with W. Langer, S. Cohen, and R. Motley, NASA Final Report and Patent Disclosure (March 6, 1986), PPPL-1986.

50. Characterization of the Tokamak Fusion Test Reactor Plasma Edge by Langmuir-Calorimeter Probes with

51. S.J. Kilpatrick et. al., J. Vac. Sci. Technol. vol. A4, 1817 (1986); Princeton Plasma Physics Laboratory Report PPPL-2284, March (1986).

52. Coherent and Turbulent Fluctuations in TFTR with K. McGuire et. al., Proc.11th IAEA on Plasma Physics, IAEA-CN-471 (1986).

53. Confinement studies of neutral beam heated discharges in TFTR with M. Murakami et. al., Plasma Phys. Control. Fusion vol. 28, 17-27 (1986).

54. Detection of Surface Glow Related to Spacecraft Glow Phenomenon with W.D. Langer et. al., J. Geophys. Res. Lett. vol. 13, 377 (1986).

55. Discharge Control and Evolution in TFTR with D. Mueller et. al., Princeton Plasma Physics Laboratory Report PPPL-2289, January (1986).

56. Energy Confinement and Profile Consistency in TFTR with R.J. Goldston et. al., Proc. 11th IAEA on Plasma Physics, IAEA-CN-471 p. (1986).

57. Experimental Results from the TFTR Tokamak with R.J. Hawyluk et. al.,Proc. Royal Soc. March 1986; also as Princeton Plasma Physics Laboratory Report PPPL-2390, October (1986).

58. Impurity and Particle Transport and Control in TFTR with K.W. Hill et. al., Proc. 11th IAEA on Plasma Physics, IAEA-CN-471 p. (1986).

59. Metallic Impurity Transport in Ohmically and Neutral Beam Heated PDX Plasmas with R.A. Hulse et. al., Bull. Am. Phys. Soc. vol. 27, 1049 (1986).

60. Power Transport to the PDX Scoop Limiter with H.W. Kugel et. al., Fusion Technology; also as Princeton Plasma Physics Laboratory Report PPPL-2363, July (1986).

61. Preliminary Measurements of Beam Energy Spectrum and Impurity Content for the TFTR Neutral Beam Injectors with R.A. Langley et. al., J. Vac. Sci. Technol. vol. A4, 1087 (1986).

62. Probes for Edge Plasma Studies of TFTR, with R.V. Budny et. al., Rev. Sci. Instrum., 57, p2107, (1986).

63. Probes for Plasma Edge Diagnostics in Magnetic Confinement Fusion Devices with G.M. McCracken, Physics of Plasma Wall Interactions in Controlled Fusion,D.E. Post and R. Behrisch, editors, Plenum Press, New York, NY, 135-209 (1986).

64. TFTR Confinement Results with M.G. Bell et. al., Plasma Phys. Control. Fusion vol 28, 1329-1340 (1986).

65. TFTR Plasma Regimes with R.J. Hawryluk et. al., Proc. 11th IAEA on Plasma Physics, as IAEA-CN-471 p. (1986).

66. Use of Graphite in Langmuir Calorimeter Probe Heads with S. Kilpatrick et. al., Rev. Sci. Instrum. vol. 27, 2075 (1986).

67. Diagnostic Methods for Low Temperature Plasmas with H.F. Dylla, in Plasma Etching and Chemistry, D.M. Manos and D.L. Flamm, eds., Academic Press, NY (1987).

68. Edge Turbulence Measurements in TFTR with S.J. Zweben, J. Nucl. Mater. Vol. 145-147, 250-254 (1987).

69. Energy Confinement and Profile Consistency in TFTR with R.J. Goldston et. al., Princeton University Plasma Physics Laboratory Report PPPL-2425,17 pp. (April 1987); Plasma Physics and Controlled Nuclear Fusion Research, (November 1986); IAEA-CN-47-A-II-1.

70. Evolution of TFTR Scrape-Off Plasmas With Neutral Beam Injection with R. Budny et. al., J. Nucl. Mater. vol 145/146, 245-249 (February 1987);also as Princeton University Plasma Physics Laboratory Report PPPL-2364, 16. pp. (September 1986).

71. Experimental results from the TFTR tokamak with R.J. Hawryluk et. al., Philosophical Transactions of the Royal Society of London A vol. 322, 147-162 (1987).

72. High Power Neutral Beam Heating Experiments on TFTR with Balanced and Unbalanced Momentum Input with M. Bitter et. al., Plasma Phys./Control. Fusion vol. 29, 1235-1245 (October 1987).

73. High Temperature Plasmas in the Tokamak Fusion Test Reactor with J.D.Strachan et. al., Phys. Rev. Lett. vol. 58, 1004-1007 (1987).

74. Neutral beam injection on the Tokamak Fusion Test Reactor with L.R. Grisham et. al., Nucl. Instrum. Methods Phys. Res. B vol. B24-B25, 741-745 (1987).

75. Plasma-Material Interactions in TFTR with H.F. Dylla et. al., J. Nucl. Mater. 145/146, 48-60 (Feb 1987); also as Princeton University Plasma Physics Laboratory Report PPPL-2386, 44 pp. (October 1986).

76. Power Transport to the PDX Scoop Limiter with H.W. Kugel et. al., Fusion Technol. vol 12, 145-152 (July 1987); also as Princeton Plasma Physics Laboratory Report PPPL-2362, 31 pp. (July 1986);).

77. An Overview of TFTR Confinement with Intense Neutral-Beam Heating with M.G. Bell et. al., Plasma Physics and Controlled Nuclear Fusion Research vol. 1, p27, (October 1988).

78. Carbon Influx Studies in TFTR with A.T. Ramsey, et. al., Bull. Am. Phys. Soc. vol. 33, 1882 (1988).

79. Current drive and confinement of angular momentum in TFTR with S.D. Scott et. al., Plasma Physics and Controlled Nuclear Fusion Research, 655-67, (1988).

80. Fast-Probe Plasma Diagnostics with S.J. Kilpatrick, Mat. Res. Soc. Symp. vol 117,p , (1988).

81. Stability of TFTR Plasmas with J. Manickam et. al., Plasma Physics and Controlled Nuclear Fusion Research vol. 1, 395-407 (October 1988); also as Int. Atomic Energy Agency Report IAEA-CN-50/A-VIII-4.

82. Preparation of TFTR diagnostics for D-T break-even experiments, LC Johnson, DM Manos, KM Young, Rev. Sci. Instrum., vol 59, p1881-1883, (1988)

83. Transport and Stability Studies on TFTR with K.M. McGuire et. al., Plasma Phys./Control. Fus. vol. 30, 1391-1403 (November 1988); also as Princeton University Plasma Physics Laboratory Report PPPL-2551, 21 pp. (October 1988).

84. Transport in TFTR Supershots with M.C. Zarnstorff et. al., Proceedings of the Twelfth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Vienna, Austria (1988); Paper IAEA-CN-50/A-3-3, Vol. I, p 183-191.

85. Tritium Retention in TFTR with R. Bastasz et. al., Princeton Plasma Physics Laboratory Report PPPL-2523, 127 pp. (April 1988) Final Report; also as Sandia National Laboratories, SAND 88-8212, 127 pp. (April 1988).

86. An Overview of TFTR Confinement with Intense Neutral Beam Heating with M.G. Bell et. al., Plasma Phys./Control. Nucl. Fus. Res. vol. I, 27-40 (1989).

87. Collector Probe Measurements of Ohmic Conditioning Discharges in TFTR with S.J. Kilpatrick et. al., J. Nucl. Mater. vol. 162-164, 757-762 (1989; also as Princeton University Plasma Physics Laboratory Report PPPL-2600, 20 pp. (1989).

88. Current Drive and Confinement of Angular Momentum in TFTR with S.D. Scott et. al., Plasma Phys./Control. Nucl. Fus. Res. vol. 1, 655-667 (1989).

89. First-Wall Conditioning for Enhanced Confinement Discharges and the DT Experiments in TFTR with H.F. Dylla et. al., J. Nucl. Mater. vol 162/164, 128-137 (1989); also as Princeton Plasma Physics Laboratory Report PPPL-2570, 24 pp. (November 1988).

90. Hydrogen Isotope Trapping on Graphite Collectors During and Isotope Exchange Experiment in the Tokamak Fusion Test Reactor with S.J. Kilpatrick et. al., J. Vac. Sci. Technol. vol. A7, 1087-1091 (May/June 1989); also as Princeton Plasma Laboratory Report PPPL-2599, 19 pp. (March 1989).

91. Probe Measurements of TFTR Edge Plasmas of the Neutral Beam Heating Powers up to 20 MW with S.J. Kilpatrick, M.G. Bell, R.V. Budny, and M. Ulrickson, J. Nucl. .Mater. vol. 162-164, 251-257 (1989).

92. Progress in the Neutral Beam Injection Heating Experiment on Tokamak Fusion Test Reactor with L.R. Grisham et. al., Nucl. Instrum./Methods vol. B40/41, 996-999 (1989).

93. Stability of TFTR Plasmas with J. Manickam et. al., Proceedings of the Twelfth International Conference on Plasma Physics and Controlled Nuclear Fusion Research vol. I, 395-407, Vienna, Austria (1989).

94. A Review of Carbon Blooms on JET and TFTR with M.Ulrickson et. al., J. Nucl. Mater. vol. 176/177, 7 pp. (1990).

95. Commercially designed and manufactured storage ring for synchrotron radiation applications with M.A. Green et. al., Nucl. Instrum. Methods Phys. Res. A vol. 291, 464-71 (1990).

96. Correlations of Heat and Momentum Transport on TFTR with S.D. Scott at. al., Phys. Fluids vol. B2, 1300-1305 (June 1990).

97. Effects of Boronization of the First Wall in TFTR with H.F. Dylla, J. Nucl. Mater. vol 176, 137 (1990).

98. High-Beta Operation and Magnetohydrodynamic Activity on the TFTR Tokamak with K. McGuire et. al., Phys. Fluids vol. B2, 1287-1290 (June 1990); also as Princeton Plasma Physics Laboratory Report PPPL-2674, 15 pp. (April 1990).

99. ICRF Heating in Several Regimes on TFTR with J. Hosea et. al., Proceedings of the Thirteenth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Washington, D.C. (October 1990); Paper IAEA-CN-53/E-1-5.

100. ITER Diagnostics Conceptual Design with M. Adams et. al., ITER Documentation Series No. 33, International Atomic Energy Agreement, Vienna, Austria (1990).

101. ITER Operation and Diagnostics with V. Mukhovatov, Proceedings of the Thirteenth International Conference on Plasma and Controlled Nuclear Fusion Research, Washington, D.C., (1990); Paper IAEA-CN-53/F-3-17.

102. Limiter H-Mode Experiments on TFTR with C. Bush et. al., Proceedings of the Thirteenth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Washington, D.C. (October 1990); Paper IAEA-CN-53/A-4-5.

103. Midplane Measurements of MeV Ion confinement in TFTR with R. Boivin, S. Kilpatrick, and S.J. Zweben et. al., Rev. Sci. Instrum. vol. 61 (101) 3208-3210 (1990).

104. Ohmic and neutral beam heated detached plasmas on TFTR with C.E. Bush, J. Nucl. Mater. vol. 176-177, 785-91 (1990).

105. Peaked Density Profile Circular Limiter H-Modes on TFTR with C.E. Bush, Phys. Rev. Lett., vol. 65, 424-427 (July 1990); also as Princeton University Plasma Physics Laboratory Report PPPL-2693 (June 1990), 17pp.

106. Power and Particle Balance During Carbon Blooms, with S. Pitcher et. al. Phys. Fluids vol. B2, 1287-1290 (June 1990).

107. Recent TFTR Results with D.M. Meade et. al., Proceedings of the Thirteenth International Conference on Plasma Physics and Controlled Nuclear Fusion Research, Washington, D.C. (October 1990); Paper IAEA-CN-53/A-1-1.

108. Summary of TFTR Diagnostics, Including JET and JT-60 with K.W. Hill et. al., Princeton University Plasma Physics Laboratory Report PPPL-2690 (May 1990).

109. The Boundary Plasma Behavior During Neutral Beam Injection in TFTR with C.S. Pitcher, R.V. Budny, S.J. Kilpatrick, S.S. Medley and A.T. Ramsey, J. Nucl. Mater. (1990).

110. The Effect of Plasma Density on the Behavior of the Plasma Boundary in Helium Discharges in the Tokamak Fusion Test Reactor with S.J. Kilpatrick et. al., J. Vac. Sci. Technol. vol A8 3, 1767-1771 (May/June 1990); also as Princeton Plasma Physics Laboratory Report PPPL-2683, 14 pp. (March 1990).

111. The PPPL Lorentz Orbit Code with J. Felt, C.W. Barnes, R.E. Chrien, S.A. Cohen, W.W. Heidbrink and S. Zweben, Rev. Sci. Instrum vol. 61, 3262-3264 (October 1990).

112. Diagnostics of low temperature plasmas: the electron component with J.L. Cecchi, C.W. Cheah, and H.F. Dylla, Thin Solid Films vol. 195, 319-336 (1991).

113. High-Q Plasmas in the TFTR tokamak with D.L. Jassby et. al., Phys. Fluids B vol. 3, 2308-15 (1991).

114. ICRF Heating in Several Regimes on TFTR with J. Hosea et. al., Proceedings on Plasma Physics and Controlled Nuclear Fusion Controlled Nuclear Fusion Research, 13, Washington, D.C. (1991).

115. ITER Diagnostics with V. Mukhovatov et. al., ITER Documentation Series, No.33, International Atomic Energy Agency, Vienna, Austria, 1-135 (1991).

116. ITER Conceptual Design Report with S.A. Cohen, K. Young, R. Kaita and the ITER Participants, ITER Documentation Series No. 18, International Atomic Energy Agency, Vienna, Austria (1991).

117. Overview of TFTR transport studies with R.J. Hawryluk et. al., Plasma Phys. Control. Fusion vol. 33, 1509-36 (1991).

118. Physics and Technology R &D for Conceptual Design with S.A. Cohen, D. Post,K. Young, R. Kaita, and ITER participants, ITER Documentation Series No 19,International Atomic Energy Agency, Vienna, Austria (1991).

119. Power and Particle Balance During Carbon Blooms in TFTR Discharges withC.S. Pitcher, J. Nucl. Mater. (1991).

120. The Effect of Limiter Conditioning on the Tokamak Fusion Test Reactor Edge Plasma with S.J. Kilpatrick, J. Vac. Sci. Technol. vol. 9, 742-746 (1991).

121. A Database for Edge Turbulence and Transport Studies with H. Tsui et. al., J. Nucl. Mater. Vol. 196-198, 794 (1992).

122. Contamination Control in the Design and Manufacture of Gas Flow Components with J. Sullivan, S. Schaffer, S. King, and H.F. Dylla, J. Vac. Sci. Technol. Vol. A10, 1869-74 (1992).

123. Edge Plasma and Fluctuations in TFTR with H. Tsui, A. Rudyj, Ch. Ritz, and A. Wooten, J. Nucl. Mater., vol. 196-198, 292 (1992).

124. Effect of the Boundary Plasma on TFTR Ohmic Discharges with C.S. Pitcher et. al., Nuclear Fusion, Vol. 32, No. 2, 239-256 (1992).

125. Experiments on TFTR Supershot Plasmas with J.D. Strachan et. al., Princeton University Plasma Physics Laboratory Report PPPL-2841, 31 pp. (May 1992).

126. Laboratory Characterization of Spectroscopic Markers for Surface Erosion by Plasmas with T. Bennett, M. Herzer, and J. Schwartzman, J. Nucl. Mater. Vol. 196-198, 933 (1992).

127. Noble Gas Pumping by the TFTR Graphite Limiter with A.T. Ramsey, J. Nucl. Mater vol. 196-198, 509 (1992).

128. Oxide Degradation Effects in Dry Patterning of Resist Using Neutral Oxygen Beams with W.E. Mlynko, and S.R. Kasi, Material Res. Society vol. 405, p41-48, (1992).

129. Plasma Fluxes to surfaces for an oblique magnetic field with C. Pitcher et. al., J. Nucl. Mater. Vol 196-198, 794 (1992).

130. A comparison of edge turbulence in tokamaks, stellarators, and reversed-field pinches with H.Y.W. Tsui et. al., Phys. Fluids B vol. 5, 2491-7 (1993).

131. Correlation of outgassing of stainless steel and aluminum with various surface treatments with H.F. Dylla, and P.H. LaMarche, J. Vac. Sci. Technol. Vol. A11, 2623-36 (1993).

132. A new device for injection of iron atoms into plasmas with H. Hsuan et. al., Rev. Sci. Instrum. vol. 66, 568-70 (1995).

133. Chris .A. Nichols and D. M. Manos, "Simulation of a surface-reflection neutral stream source", Journal of Applied Physics. 80, p2643, (1996)

134. Gas Permeation and Leakage through Through Reusable Seals, M. Johnson, T. Provost, and D. M. Manos, J. Vac. Sci. Technol., 15, 763, (1997)

135. Stripping and cleaning of photoresist using low energy neutrals, Xianmin Tang, C. A. Nichols and D. M. Manos, J. Appl. Phys, Vol.86, p.2419-2424, (1999).

136. Characterization and modeling of a microwave driven xenon excimer lamp, J. D Ametepe, Jessie Diggs, D. M Manos, M. J. Kelley, J. Appl. Phys. 85(11), 7505-7510, (1999).

137. Xianmin Tang and D. M. Manos, Time-resolved electrostatic probe studies of a pulsed inductively coupled plasma", Plasma Sources Sci. and Technol., 8(1999) 594-602.

138. Xianmin Tang, Dennis M. Manos, Qi Wang, Christopher A. Nichols, Charge Free Processing. Proc. SPIE, vol 4181,p324-334, (2000),

139.) Optical emission studies and neutral stream characterization of a surface reflection materials processing source, X. M. Tang and D. M. Manos, J Vac Sci Technol, A18, 1359, (2000)

140. Process damage assessment of a low-energy inductively-coupled plasma-based neutral beam source, X. M. Tang, Qi Wang, and D. M. Manos, J. Vac. Sci. Technol B18,1262, (2000)

141. Lingling Wu, Hongjun Gao, Dennis M. Manos, Pattern Writing by Implantation in a Large-scale PSII System with Planar Inductively Coupled Plasma Source, Proc. Mat. Research Soc, 617, p111-116, (2000)

142. Analysis of diamond-like carbon and Ti.MoS2 coatings on Ti-6Al-4V substrates for applicability to turbine engines, L. L. Wu, C. R. Kalil, A. Prasad, B. Holloway, and D. M. Manos, Surface and Coatings Technologies, v130, 207, (2000)

143. Theory of Wave Propagation along a waveguide filled with moving magnetized plasma, S. Liu, Y. Yan, J. Mao, and D. Manos, Phys. Rev. E,65,036411 (pg1-8) 2002

144. Shenggang Liu, D.C. Huong, Dajun Zhu , Chengyue Li, D.M. Manos, Theoretical study of a microwave system for the plasma microwave excited excimer laser, ,Infrared and Millimeter Waves, 73- 74, (2002) **(**ISBN: 0-7803-7423-1)

145. Xin Zhao, R. A. Outlaw, R. L. Champion, J. J. Wang, D. M. Manos, and B. C. Holloway, Field emission from a Ca nanotip grown on a Mo<110> Microtip, Applied Physics Letters, Vol 85, Issue 8, pp. 1415-1417 ,(2004)

146. J.. J. Wang, M. Y. Zhu, R. A. Outlaw, X. Zhao, D. M. Manos, and B. C. Holloway V. P. Mammana, Free-standing subnanometer graphite sheets, Applied Physics LettersVol. 85, Issue 7, pp. 1265-1267, ,(2004)

147. Jianjun Wang, Mingyao Zhu, Ron A. Outlaw, Xin Zhao, Dennis M. Manos, Brian C. Holloway "Synthesis of carbon nanosheets by inductively coupled radio-frequency plasma enhanced chemical vapor deposition" *Carbon*, 42(14) 2867-2872, (2004)

148. Jianjun Wang, Mingyao Zhu, Xin Zhao, Ron A. Outlaw, Dennis M. Manos, and Brian C. Holloway, Chinho Park, Tim Anderson ,Victor P. Mammana, Synthesis and field-emission testing of carbon nanoflake edge emitters, J. Vac. Science & Technol. B: Microelectronics and Nanometer Structures,Vol. 22, Issue 3, pp. 1269-1272 (2004)

149. Hernandez, C, Wang, T, Siggins, T, Bullard, D, Dylla, HF, Reece, C, Theodore, ND, Manos, DM, dc field-emission analysis of GaAs and plasma-source ion-implanted stainless steel, J. Vac. Sci. Technol.. A, Vol 21, Issue 4, pg 1115-1119, (2004)

150. D.I. Malyarenko, H. Chen, A.L. Wilkerson, E.R. Tracy, W.E. Cooke, D.M. Manos, M. Sasinowski, O.J. Semmes. Ga+ TOF-SIMS Lineshape Analysis for Resolution Enhancement of MALDI MS Spectra of a Peptide Mixture. Appl. Surf. Sci., 231-232, pp.357-361. (2004)

151. Enhancement of Sensitivity and Resolution of SELDI TOF-MS Records for Serum Peptides Using Time Series Analysis Techniques", DI Malyarenko, WE Cooke, B-L Adam, G. Malik, H. Chen, ER Tracy, MW Trosset, M. Sasinowski, OJ Semmes, DM Manos, *Clinical Chemistry*, 51(1), p.65, (2005),

152. Nitrogen-Implanted Silicon Oxynitride: A Coating for Suppressing Field Emission From Stainless Steel Used in High-Voltage Applications, ND Theodore, BC Holloway, DM Manos, RM Moore, C. Hernandez, T. Wang, HF Dylla, IEEE Transactions in Plasma Science, 34, (4), 1074-1079, (2006)

153. Analysis and kinetic model of a high-pressure KrI excimer emission in a novel capacitively coupled rf lamp S. Peng, J. Ametepe, DM Manos, Applied Physics B, Volume 83, Issue 4, pp.643-650, (2006)

154. Deconvolution Filters to Enhance Resolution of Dense Time-of-Flight Survey Spectra in Time-Lag Optimization Range, Malyarenko, D.I., Cooke, W.E., Tracy, E.R., Trosset, M.W., Semmes, O.J., Sasinowski, M., Manos, D.M Rapid Commun. Mass. Spec., 20 (112), p. 1661-1669 (2006)

155. Resampling and deconvolution of linear time-of-flight records for enhanced protein profiling, D.I. Malyarenko, W.E Cooke, E.R Tracy, M.W Trosset, O.J Semmes, M Sasinowski, D.M Manos, Rapid Commun. Mass. Spec., 20 (112), p. 1670-1678 (2006)

156. NIH SBIR Phase II Final Progress Report 2004, *INCOGEN Internal Report 02-24-05, W&M Subcontract* (Malyarenko, D., Miller, J., Lee, Y., Sasinowski, M.) Feb. 2005

157. Automated Peak Identification in a TOFSIMS Spectrum, H. Chen, E.R. Tracy, W.E. Cooke, O.. Semmes, M. Sasinowski, , D.M. Manos, in "Quantitative Medical Data Analysis Using Mathematical Tools and Statistical Techniques", D. Hong and Y. Shyr, eds., World Science Publications Company, Singapore, (2006)

158. Wang, Sigen; Wang, Jianjun; Miraldo, Peter; Zhu, Mingyao; Outlaw, Ronald; Hou, Kun; Zhao, Xin; Holloway, Brian C.; Manos, Dennis; Tyler, Talmage; Shenderova, Olga; Ray, Mark; Dalton, Jay; McGuire, Gary.; "High field emission reproducibility and stability of carbon nanosheets and nanosheet-based backgated triode emission devices". Applied Physics Letters (2006), 89(18), 183103/1-183103/3.

159. Mingyao Zhu; Jianjun Wang; Dennis M. Manos; Ron A. Outlaw; Xin Zhao; Kun Hou; V Shutthanandan; Brian C. Holloway "A Mechanism for Carbon Nanosheet Formation" Carbon, 45, 2229-2234, (2007) DOI:10.1016/j.carbon.2007.06.017.

160. Mingyao Zhu, Jianjun Wang, Ronald A. Outlaw, Kun Hou, Dennis M. Manos, and Brian C. Holloway, " Synthesis of carbon nanosheets and carbon nanotubes by radio frequency plasma enhanced chemical vapor deposition", Diamond and Related Materials, Vol. 16, 196-201 (2007)

161. J. Wang, M. Zhu, H. Tian, X. Zhao, R. A. Outlaw, D. M. Manos, B. C. Holloway "Effect of radio frequency plasma conditions on carbon nanosheet deposition" in preparation for submission to JVST A

162. M. Bagge-Hansen, P. Miraldo, R.A. Outlaw, M. Zhu, K. Hou, N. Theodore, and D.M. Manos, "Field emission from Mo[sub 2]C coated carbon nanosheets," published in Journal of Applied Physics 103, 014311 (2008)

163. M.Y. Zhu, R.A. Outlaw, K. Hou, D.M. Manos, "Low Temperature Synthesis of Carbon Nanosheets by C_2H_2/H_2 Plasma Enhanced Chemical Vapor Deposition", submitted to Applied Physics Letters, 2008

164. Kun Hou, Ronald A. Outlaw, Sigen Wang, Mingyao Zhu, Ronald A. Quinlan, Dennis M. Manos, Martin E. Kordesch, Uwe Arp, and Brian C. Holloway ,Uniform and enhanced field emission from chromium oxide coated carbon nanosheets, Appl. Phys. Lett. **92**, 133112 (2008); DOI:10.1063/1.2894201.

165. Enhanced precision of automated broad-mass calibration for MALDI-TOF using computational detection of ionization states, Dariya I. Malyarenko, William E. Cooke, Christine L. Gatlin-Bunai, Dennis M. Manos, submitted to Journal of Proteomic Research, 2008

166. Haijian Chen, Eugene R. Tracy, William E. Cooke, , Dasha I. Malyarenko, Dennis M. Manos Automated peak detection in time-of-flight secondary ion mass spectrometry, in preparation for Analytical Chemistry, 2008

Unrefereed, or single-refereed, and/or conference proceedings and digests

1. 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).
2. Power Measurements in the PDX Scrape-Off Layer with S. Cohen, Bull. Am. Phys. Soc. vol. 25, 929 (1980).
3. Bolometer Measurements During Impurity Injection on PLT with J.F. Schivell, S.A. Cohen, and E.B. Meservey, Bull. Am. Phys. Soc. vol. 26, 980 (1981).
4. Influence of and Impurity Injection on Tokamak Parameters with S.A. Cohen et. at., Bull. Am. Phys. Soc. vol. 26, 981 (1981).
5. Neutral Beam Heating Results on PDX with R.J. Hawryluk et. al., PPPL-IM-May 1981.
6. Poloidal and Toroidal Plasma Rotation in the PDX Tokamak with R.A. Hulse et. al., Bull. Am. Phys. Soc. vol. 26, 1000 (1981).
7. Recent PDX Results with M.G. Bell et. al., Proc. 10th European Conf. on Controlled Fusion and Plasma Physics, 21-39 (September 1981).
8. The Transport of Injected Impurities in the PDX Tokamak with R.A. Hulse et. al., Bull. Am. Phys. Soc. Vol. 26, 864 (1981).
9. 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).
10. Impurity Radiation During ICRF Heating in the PLT Tokamak with B. Stratton et. al., Bull. Am. Phys. Soc. vol. 27, 1059 (1982).
11. Metallic Impurity Transport in Ohmically and Neutral Beam Heated PDX Plasmas with R.A. Hulse et. al., Bull. Am. Phys. Soc. vol. 27, 1049 (1982).
12. MHD Stability Properties of PLT Discharges During High Power ICRF Heating with J.R. Wilson et. al., Int. Conf. on Plasmas, Goteburg, Sweden (1982).
13. 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).
14. PLT ICRF Heating Experiment with D.Q. Hwang et. al., Bull. Am. Phys.
15. Soc. vol. 27, 1044 (1982).
16. PLT Radiation Measurement with Pyroelectric Detector with A.L. Pecquet et. al., Bull. Am. Phys. Soc. Vol. 27, 830 (1982).
17. Probe Studies of Fast Ion Losses to the Outer Midplane of PDX and PLT with R.V. Budny and S.A. Cohen, Bull. Am. Phys. Soc. vol. 27, 1103 (1982).

18. 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).
19. Surface Studies in PLT, PDX, and TFTR with S.A. Cohen and H.F. Dylla, Symposium of Effective Utilization of Surface Analysis Techniques, Sapporo, Japan (1982).
20. The Development of a Universal Diagnostic Probe System for TFTR with R. Mastronardi and R. Cabral, NASA 16th Aerospace Mechanism Symposium, NASA JFK, Florida (1982).
21. A Universal Diagnostic probe system for Tokamak Fusion Test Reactor with R. Mastronardi and R. Cabral, 10th Symposium on Fusion Engineering Proceedings, 1507-11 vol. 2. (1983).
22. Fast Ion Charge-Exchange Measurement During ICRF Heating in PLT with G.W. Hammett et. al., Bull. Am. Phys. Soc. vol. 28, 1129 (1983).
23. High confinement discharges in PDX with neutral beam injection with S.M. Kaye, 11th European Conference on Controlled Fusion and Plasma Physics, 19-22 vol. 1 (1983).
24. ICRF Heating Results with Short Center-Fed Antennae on PLT with J.R. Wilson et. al., Bull. Am. Phys. Soc. vol. 28, 1128 (1983).
25. Impurity Long-t Experiment in PLT with S.A. Cohen, Bull. Am. Phys. Soc. vol. 28, 1127 (1983).
26. Limiter Designs for PLT/SSX with J. Timberlake et. al., Bull. Am.
27. Phys. Soc. vol. 28, 1093 (1983).
28. Plasma Edge Control for RF Startup and Sustained Operation in the PLT Tokamak with J.C. Hosea et. al., Bull. Am. Phys. Soc. vol. 28, 1128 (1983).
29. Plasma Heating Results with ICRF Launched for High Field Region of PLT with D.Q. Hwang et. al., Bull. Am. Phys. Soc. vol. 28, 1128 (1983).
30. Power Balance, energy Deposition and Probe Measurements to PDX Discharges with D.K. Owens et. al., Bull. Am. Phys. Soc. vol. 28, 1172 (1983).
31. Probe Measurements During ICRF Heating of PLT with R.V. Budny et. al., Bull. Am. Phys. Soc. vol. 28, 1126 (1983).
32. Recent results on ICRF heating on PLT with J.R. Wilson et. al., IEEE Conf. Record vol. 89, 1656 (1983).
33. Reflection of Atoms from Surfaces with J. Perkins and S. Cohen, Bull. Am. Phys. Soc. vol. 28, 1093 (1983).
34. Summary of Recent Confinement Studies in Neutral Beam Heated PDX Discharges with R.J. Fonck et. al., Bull. Am. Phys. Soc. vol. 28, 1172 (1983).
35. Thermal Depositions on the PDX Scoop Limiter with H. Kugel, R. Budny, R. Knize, and D. Post, Bull. Am. Phys. Soc. vol. 28, 1175 (1983).
36. The Effect of Vibrational Excitation on Molecular Ionization and Fragmentation in Tokamak Edge Plasmas, Bull, Am, Phys. Soc. vol. 28, 932 (1983).
37. The Transition to H-Mode in PDX-Fast Changes in the T(e) Profile with D. Boyd et. al., Bull. Am. Phys. Soc. vol. 28, 1172 (1983).
38. Confinement Studies of Ohmically-Heated Plasmas in TFTR with P.C.Efthimion et. al., Proc. of the Tenth Internat. Conf. on Plasma Physics and Controlled Nuclear Fusion Research vol. I, 29, London (Sept. 1984).
39. Power Deposition on the PLT Rotating Limiter with R. Budny et. al., Bull.Am. Phys. Soc. vol. 29, 1335 (1984).
40. Propagation of the Fast Magnetosonic Wave in a Pellet Fueled PLT Plasma with D. Q. Hwang et. al., Bull. Am. Phys. Soc. vol. 29, 1332 (1984).
41. Recent Results from TFTR with R.J. Hawryluk et. al., Proc. 4th International Symposium on Heating in Torodial Plasmas vol. 2, 2 (1984).

42. A ground-based experimental test program to duplicate and study the spacecraft glow phenomenon, WD Langer, SA Cohen, DM Manos, DH McNeill, RW Motley, M Ono, and S. Paul, NASA_SEE-N86-13239 03-88, Marshall Space Flight Center 2nd Workshop on Spacecraft Glow, p202-211, (1985)
43. Chromium Getter Studies in TFTR with H.F. Dylla et. al., Bull. Am. Phys. Soc. vol. 30, 1517 (1985).
44. Edge Probe Results During Gettered and Ungettered TFTR Discharges with A. Ramsey et. al., Bull. Am. Phys. Soc. vol. 30, 1523 (1985).
45. Evolution of Edge Plasma Conditions in TFTR with R. Budny et. al., Bull. Am. Phys. Soc. vol. 30, 1523 (1985).
46. Limiter Biasing Experiments in PBX Tokamak with M. Shimada et. al., Bull.Am. Phys. Soc. vol. 30, 1439 (1985).
47. Species Measurements on TFTR Neutral Beams with H.W. Kugel et. al., Bull.Am. Phys. Soc. vol. 30, 1594 (1985).
48. Synergistic Effects in Fusion Machines: Session Summary with R.A. Langley and J. Roth. Proc. of the Workshop on Synergistic Effects in Surface Phenomena Related to Plasma-Wall Interactions vol. 89, p5-11, (1985), also as SEE N85-15488 06-75, p1-10, 10/1984
49. Ground-Based Studies of Spacecraft Glow and Erosion Caused by Impact of Oxygen and Nitrogen with W.J. Langer et. al., Bull. Am. Phys. Soc. vol. 31, 1512 (1986). Edge Probe Studies of TFTR Plasmas at High Neutral Beam Injection Power with S.J. Kilpatrick et. al., Bull. Am. Phys. Soc. vol. 31, 1449 (1986).
50. TFTR Edge Studies Using Sample Exposure Probes with S.J. Kilpatrick,Bull. Am. Phys. Soc. vol. 31, 1449 (1986).
51. Continuous Edge Plasma Profiles by Probes in TFTR Neutral Beam Heated Discharges with S.J. Kilpatrick, M. Diesso, and K. Roayaie, Bull. Am. Phys. Soc. Vol. 32, 1806 (1987).
52. Edge Measurements During ICRF Heating in PLT with I.S. Lehrman et. al., J. Nucl. Mater. vol. 145-147, 250-254 (1987);also as AIP Conf Proc. Vol 159, 0274-277, (1987
53. Groundbased Spacecraft Glow by Impact of O and N Beams with W.D. Langer,Proc. 18th Int. SAMPE Conf., Oct 7-8, (1987), Seattle, WA.
54. Prospects for Rf wave measurements using probes on TFTR with G.J. Greene et. al., IEEE Conference Record - Abstracts, p. xxv+130, 33 (1987).
55. RF Emission from Phmic and Beam-Heated Plasmas in TFTR with G.J. Greene, et.al., Bull. Am. Phys. Soc. Vol. 32, 1806 (1987).
56. A Comparison of the Edge Paramenter of TFTR Discharges During Co- and Counter- High Power Neutral Beam Heating with S. Kilpatrick, et. al., Bull. Am. Phys. Soc. Vol. 33, 2100 (1988).
57. A Polarimeter/Spectrometer system for Use with a Lithium Injector as a Current Density Profile Diagnostic with J.L. Terry, et. al., Bull. Am. Phys. Soc. Vol. 33, 2101 (1988).
58. Confinement in TFTR with K. McGuire et. al., Proc. All-Union Seminar on Toroidal Systems, Dubna, USSR, (February 1989).
59. 147) Timberlake et. al., Proc. Conf. on Canadian Fusion Fuels Technology Project, Toronto, Canada (November 1989).
60. Enhanced Carbon Influx into High Temperature TFTR Plasmas with A.T. Ramsey, B.C. Stratton, and M. Ulrickson, Bull. Am. Phys. Soc. Vol. 34, 1965 (1989).
61. Probe Studies of Anisotropies in the TFTR Scrape-Off Layer with A. Chankin et. al., Bull. Am. Phys. Soc. Vol. 34, 2017 (1989).
62. TFTR Edge Parameter Scaling for Ohmic and Auxillary-Heated Discharges with S.J. Kilpatrick, N. Darnton, and M. Ulrickson, Bull. Am. Phys. Soc. Vol. 34, 2017 (1989).

63. A Fast Reciprocating Edge Probe for TFTR with S.J. Kilpatrick et. al., Bull. Am. Phys. Soc. Vol. 35, 2092 (1990).

64. Measurements and Calculations of MeV Ion Losses Due to Toroidal Field Ripple in TFTR with R.L. Boivin, S. Kilpatrick, R.B. White and S.J. Zweben, Bull. Am. Phys. Soc. Vol. 35, 2088 (1990).

65. First-Wall Behavior in TFTR with C.S. Pitcher et. al., Proceedings of the Seventeenth European Conference on Controlled Fusion and Plasma Heating, Amsterdam, The Netherlands (June 1990).

66. Modeling of Carbon in the TFTR Edge Plasma with B.J. Braams et. al., Europhysics Conference Abstracts, Part III, p. 1417 (European Physical Society, 1990).

67. Studies of the Edge Plasma of TFTR During Gas Puffing and Current Ramping to Produce Detached and H-Mode Plasmas with S.J. Kilpatrick et. al., Bull. Am. Phys. Soc. Vol. 35, 2085 (1990).

68. The Effect of Density on Boundary Plasma Behavior in TFTR with C.S. Pitcher et. al., Bull. Am. Phys. Soc. Vol. 35, 2089 (1990).

69. Vacuum System Design for LSU Electron Storage Ring with H.F. Dylla, P. LaMarche, J. Citrolo and M. Ulrickson, Nineteenth Annual Symposium on Applied Vacuum Science and Technology, Clearwater, FL (February 1990).

70. Design of vacuum vessel and pumping system for LSU synchrotron, H.F. Dylla, D. M. Manos, J.C. Citrolo, P.H. LaMarche, S. Raftopolous, and M. Ulrickson, A.G. Mathewson, A. Poncet, and F. Mazza, AIP Conference Proceedings, vol236,p389-403, (1991)

71. Application of Neural Networks for Real-Time Computations of Edge Plasma Probe Measurements on TFTR with L. Lagin and M. Diesso, Bull. Am. Phys. Soc. Vol. 36, 2450 (1991).

72. Carborane films: Applications to first-wall problems in Tokamaks with B.L. Doyle, D.S. Walsh, W.R. Wampler, A.K. Hays, H.F.Dylla, and S.J. Kilpatrick, AIP Conf. Proc., 639-642 (1991).

73. ITER Diagnostics: Progress in the U.S. with K.M. Young, K.W. Hill, and G. Schilling, Bull. Am. Phys. Soc. Vol. 36, 2276 (1991).

74. New Techniques for Sputtering Pure Boron and Boron-Carbon Compositions with J. Timberlake and E. Nartowicz, Bull. Am. Phys. Soc. Vol. 36, 2452 (1991).

75. Noble Gas pumping by the TFTR Graphite Limiter with A.T. Ramsey, Bull. Am. Phys. Soc. Vol. 36, 2452 (1991).

76. Isotope Changeover Experiments in TFTR and DT Operating Scenarios with J. Timberlake et. al., Bull. Am. Phys. Soc. Vol. 36, 2451 (1991).

77. Isotope Changeover on TFTR and Implications for Tritium Operation with S. Scott et. al., Bull. Am. Phys. Soc. Vol. 36 (1991).

78. Limiter H-Mode Experiments on TFTR with C.Bush, Proceedings of the Thirteenth international Conference on Plasma Physics and Controlled Nuclear Fusion Controlled Nuclear Fusion Research, Washington, D.C. (1990);Atomic Energy Agency, Vienna, Austria (1991).

79. Plasma Flow to the TFTR Bumper Limiter with C.S. Pitcher et. al., Bull. Am. Phys. Soc. Vol. 36, 2451 (1991).

80. Stability of Linear Plasma Used as Source of Neutral Beam with R.W. Motley, Bull. Am. Phys. Soc. (1991).

81. The Influence of Unbalanced Injection on the Edge Structure of a Tokamak with A. Chankin, A. Ramsey, C. Bush, K. Hill and S. Kilpatrick, Proc. Int. Conf. on Plasma Materials Interaction, Bournemouth, UK (1991).

82. Poloidal Propagation and Mode Characteristics of Core and edge Density Fluctuations in TFTR with R.D. Durst, et. al., Bull. Am. Phys. Soc. Vol. 37, 1483 (1992).

83. UV Effect on Substrate Erosion Rates by a Neutral Beam of Atomic Oxygen with P. Schwartz, J. Schwarzmann, and C. Brown, Bull. Am. Phys. Soc. Vol. 37, 1451 (1992).

84. Design of a Surface Reflection Neutral Beam Source for Semiconductor Processing with C. Nichol, Bull. Am. Phys. Soc. Vol. 39, 1811 (1994).

85. Emission of Radiowaves During Fracture of Materials with A. Friedman, T. Venhaus, B. Smith, and M. Hinders, Bull. Am. Phys. Soc. Vol. 39, 1816 (1994).

86. Optically Stimulated Electron Emission for Contamination Inspection with C. Welch, Bull. Am. Phys. Soc. Vol. 39, 1817 (1994).

87. Xianmin Tang, Qi Wang and D.M.Manos, "Process-induced damage by low energy neutrals", The 4th International Symposium on P2ID, Monterey, CA, May, 1999p.116-119.

88. NDE Applications of Radio Wave Emission From Stress and Fracture with A. Friedman, M. Hinders, B. Smith, and T. Venhaus, Reviews of Progress in Quantitative Nondestructive Evaluation, vol. 14, 1175-1182 (1995).

89. Deuterium Desorption from Beryllium, R. Bastasz, J. Whaley, T. Venhaus, and D. M. Manos, Proc. Int. Conf. Effects Hydrogen on Behavior of Materials, Minerals, Metals, Materials Society, Warrendale PA, pg 251,(1996)

90. Ionized Gases: Science and Technology of Plasmas, J. Diggs and D. M. Manos, AVS Monograph Series M-16, P. Thiel and D. Fowler, eds, 62-69, (1996).

91. Characterization of titanium alloy surface treatments for adhesive bonding using atomic force microscopy techniques. J. C. Williams, S. Lowther, C. Park, T. St. Clair, C. Kalil, and D. M. Manos, Proc. 23rd Annual Meet. Adhes. Soc., p276-278, (2000).

92. Micro-processing using plasma source ion implantation, N. Theodore, L. Wu, C. Sinclair, T. Siggins, and D. Manos, Proc. 14th University/Government/Industry Microelectronics Symposium, Jun 2001, Richmond VA, ISBN, 0749-6877, 126, (2001)

93. Optical Lithography Using Excimer Lamps: 172nm and beyond, J. Diggs, J. Ametepe, S. Peng, M. Kelley, and D. M. Manos, Proc. 14th University/Government/Industry Microelectronics Symposium, Jun 2001, Richmond VA, ISBN, 0749-6877, 135, (2001)

94. Dramatic reduction of dc field emission from large area electrodes by plasma-source ion implantation, C. K. Sinclair, H. F. Dylla, and T. L. Siggins, T. J. Venhaus, L. Wu, and D. M.Manos, 29th Proc. Particle Accelerator Conference, July 2001, AIP Press,(2001)

95. Nimel Theodore, Ling Ling Wu, Dennis Manos. "Surface Processing Using Plasma Source Ion Implantation." Proceedings of the 2002 Virginia Space Grant Consortium. March 2002.

96. Liu Shenggang, D. C. Huong, Li Chengyue, and D.M. Manos, "Theoretical Study of a microwave system for the plasma microwave excited excimer laser",27th Infrared and Millimeter Waves, 2002 Conf. Digest,pg74-74,(2002),ISBN 0-7803-7423-1

97. N. D. Theodore, A. L. Wilkerson, D. M. Manos, R. Moore, "Analysis of implanted metal and alloy surfaces", Workshop on Thin Films, Surfaces and Materials Processing, Annual Meeting of the Mid-Atlantic Chapter of the American Vacuum Society, Newport News, VA, 2002

98. Ga^+ TOF-SIMS Lineshape Analysis for Resolution Enhancement of MALDI MS Spectra of a Peptide Mixture, D. I. Malyarenko*, H. Chen, A. L. Wilkerson, E.R. Tracy, W.E. Cooke, D.M. Manos, Proc SIMS XIV Conference, San Francisco, Sep 2003

99. SIMS XIV (San Diego, September 2003, poster): "Ga^+ TOF SIMS Lineshape Analysis for Resolution Enhancement of MALDI MS Spectra of a Peptide Mixture", Malyarenko, D.I., Chen, H., Wilkerson, A.L., Tracy, E.R., Cooke, W.E., Manos, D.M., Sasinowski, M., Semmes, O.J., *SIMS XIV Conf Proc* 2003,

100. Field emission of clean and oxidized Mo<110> Microtips, Xin Zhao, R. A. Outlaw, R. L. Champion, J. J. Wang, D. M. Manos, and B. C. Holloway, Proc IVNC, 2004 Tech Digest 17th International Conf., p96-97 (2004)

101. Novel Radiation Sources in Vacuum UV and Near UV, S. Peng, J. Ametepe, and DM Manos, Bull Am Phys. Soc, April Meeting, Denver CO, May1-4,2004, pK1.007

102. Zhu, M.Y. Wang, J.J. Outlaw, R. Zhao, X. Holloway, B.C. Manos, D.M. Mammana, V. Ray, M. Shenderova, O. , Carbon nanotubes field emitter and back-gated structure, Vacuum Nanoelectronics Conference,. IVNC 2004. Technical Digest of the 17th International, 11-16 July pages 98- 99, 2004

103. Mingyao Zhu, Xin Zhao, R. A. Outlaw, Kun Hou, Peter Miraldo, Dennis M. Manos, Talmage Tyler, Olga A. Shenderova, "High Brightness Field Emission from Carbon Nanosheets and Back-gated Devices", Oral presentation, abstract, Proc. IEEE Southeast Conference 2007,March 2007, Richmond, VA

104. Mingyao Zhu, Jianjun Wang, Xin Zhao, Kun Hou, Ron. A. Outlaw, Brian, C. Holloway, Dennis M. Manos, "Two-Dimensional Carbon Nanostructure - Carbon Nanosheets and Their Applications", Virginia Nanotech Conference, June 11-13, Newport News, VA, 2006.

105. Kun Hou, Martin E. Kordesch, Uwe Arp, Mingyao Zhu, Ronald A. Outlaw, Peter Miraldo, Brian C. Holloway, Dennis M. Manos "Field emission observation of carbon nanosheet thin film by photoelectron emission microscopy (PEEM)", Technical Digest of the 20th IVNC, July 2007

106. Mingyao Zhu[1], R. A. Outlaw, Peter Miraldo, Hou Kun, Dennis M. Manos, "Low temperature synthesis of two-dimensional carbon nanosheets as a field electron emission material", Technical Digest of the 20th IVNC, Chicago, Ill., July 2007

107. "MALDI-TOF Signal Processing Optimization up to 100,000 m/z for Serum Proteins" H. Chen, D. I. Malyarenko, M. Tracy, C.L. Bunai, K. W., Kuschner, M. Sasinowski, L. H. Cazares, R. R. Drake, E. R. Tracy, D., M. Manos, O. J. Semmes, W. E. Cooke, 55th ASMS Conference of Mass Spectrometry Indianapolis , IN, June 2007

108. "Precision Enhancement of MALDI-TOF Spectrometry using High-Resolution Peak Detection and Label-Free Alignment" Maureen B. Tracy[1,2], Haijian Chen[1], Dennis Weaver[1], Dariya I. Malyarenko[1], Maciek Sasinowski[2], Lisa H. Cazares[3], Richard R. Drake[3], O. John Semmes[3], E. R. Tracy[1], Dennis Manos, and W. E. Cooke[1] 55th ASMS Conference of Mass Spectrometry Indianapolis , IN, June 2007

109. "Creation and Optimization of Mass Spectrometry Diagnostic Workflows using Visual Programming Interface" Maciek Sasinowski[1], Krista Miller[1], Jason Miller[1], Heather Sasinowska[1], Faye Taft[1], Matt Brown[1], Patricia Carr[1], Jennifer Lowekamp[1], Doug Hawkins[1], Nick Glover[1], Dasha Malyarenko[1,2], Maureen Tracy[1,2], Haijian Chen[2], Eugene R.

Tracy[2], William E. Cooke[2], Dennis Manos[2], Tina Bunai[2], Karl Kuschner[2], Liang Wei[2], Richard Drake[3], John Semmes[3] , 55th ASMS Conference of Mass Spectrometry Indianapolis , IN, June 2007

110. "Computational Detection and Experimental Verification of Ionization Noise versus Molecular Signals in MALDI-TOF of Protein Mixtures", D. Malyarenko, C.L Bunai, M. Tracy, Julius Nyalwidhe, L. Cazares, K. Kushner, E.R. Tracy, W. E. Cooke, D.M. Manos, Proc. 56th ASMS Conference of Mass Spectrometry, #2197, (2008)

Patents

1. Surface Modification to Waveguides, J. R. Timberlake, D. N. Ruzic, R. L. Moore, S. A. Cohen, D. M. Manos, US Patent 4,414,244, (1983)

2. Neutral Particle Surface Alteration, R. W. Motley, D, M. Manos, W. D. Langer, S. A. Cohen, US Patent 4,662,977, (1987)
3. Direct Current sputtering of boron from boron/carbon mixtures, J. R. Timberlake, E. Nartowitz, D. M. Manos, US Patent 5,372,686 (1994)
4. Rf capacitively coupled electrodeless light source, D. M. Manos, J. Diggs, J. Ametepe, J. A. Fugit, US Patent 6,130,512, (2000)
5. Microwave-driven ultraviolet light sources, D. M. Manos, J. Diggs, J. Ametepe, US Patent, 6,343,089, (2002)
6. Method of Time-Domain Filtering and Deconvolution of Overlapped Spectral Records in the Presence of Noise, U. S. Provisional Patent Application Serial No. 60/502,824 filed on September 12, 2003

7. A compact Vacuum UV spectrometer, S. Peng and D. M. Manos, declined by CWM, Patent applied for by AFOSR

8. 10/574,507 "Synthesis and Field Emission Testing of Carbon Nanoflake Edge Emitters", U.S. Patent Application filed 04/03/2006, claiming priority to PCT application and ultimately to provisional application filed 10/03/2003
9. 60/984,444 "Carbon Nanoflakes and Methods of Making and Using the Same", U.S. Provisional Patent Application filed 07/07/07.
10. Carbon Nanoflakes and Methods of Making and Using the Same, 60/948,444 (filed 7/07/2007)
11. Silicon Oxynitride Coating Compositions, 11/856,814 (filed 09/18/2007)
12. Carbon Nanoflake Compositions and Methods of Production, 12/166180, filed 07/07/2008