Curriculum Vitae

De-Ping Yang, Ph.D.

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(Updated June 2016, new items highlighted in red)

Education:

B.S., July 1981, Nanjing University (China), physics major

M.S., December 1982, University of Connecticut, Physics Department

Ph.D., March 1988, University of Connecticut, Physics Department

Research Specialization: Experimental condensed matter physics using spectroscopic methods (NMR, Mössabauer, x-ray, etc.).

Ph.D. Dissertation: "**Nuclear Magnetic Resonance and Magnetization Studies of Rapidly Quenched Aluminum-Based Alloys**"

Ph.D. Advisors: Professors William A. Hines, Joseph I. Budnick, and Douglas M. Pease

Research and Teaching before Coming to Holy Cross:

1988 – 1990: Postdoctoral Research Fellow at Univ. of Connecticut and MIT.
Biophysics research using nuclear magnetic resonance, x-ray diffraction, and differential scanning calorimetry to study interactions of drug molecules with model membranes and other biological systems.

1990 – 1994: Assistant Professor in Residence
University of Connecticut
Department of Pharmaceutical Sciences

Teaching at Holy Cross:

1994 – 2000:	Assistant Professor
January 2000:	Obtained Tenure
2000 – 2008:	Associate Professor
2000 – 2001:	Sabbatical Leave
2004 – 2007:	Physics Department Chair
2008 – present:	Professor
2008 – 2009:	Sabbatical Leave
2014 – 2015:	Sabbatical Leave

Courses Taught in Recent Years:

Spring 2016:	PHYS-116-06	Introductory Physics 2	18 students
	PHYS-344-01	Thermal Physics	13 students
Fall 2015:	PHYS-115-06	Introductory Physics 1	24 students
	PHYS-399-01	Solid State Physics	6 students
Spring 2014:	PHYS-112-04	General Physics 2	29 students
	PHYS-111-10E	General Physics Lab 2	16 students
	PHYS-111-10F	General Physics Lab 2	9 students
	PHYS-472-02	Independent Study (Kennedy, Rogers)	2 students
Fall 2013:	PHYS-111-04	General Physics 1	31 students
	PHYS-225-10B	Modern Physics Lab	10 students
	PHYS-344-01	Thermal Physics	11 students
Spring 2013:	PHYS-112-02	General Physics 2	32 students
	PHYS-231-01	Optics	7 students
Fall 2012:	PHYS-111-02	General Physics 1	35 students
	PHYS-111-10E	General Physics Lab 1	16 students
	PHYS-111-10F	General Physics Lab 1	16 students
	PHYS-344-01	Thermal Physics	11 students
Spring 2012:	PHYS-112-03	General Physics 2	33 students
	PHYS-112-10D	General Physics Lab 2	16 students
	PHYS-112-10E	General Physics Lab 2	12 students
	PHYS-461-02	Independent Study (Casimir Martinez)	1 students
Fall 2011:	PHYS-111-03	General Physics 1	34 students
	PHYS-111-10E	General Physics Lab 1	17 students
	PHYS-111-10F	General Physics Lab 1	13 students
	PHYS-344-01	Thermal Physics	16 students
Spring 2011:	PHYS-112-02	General Physics 2	26 students
	PHYS-112-10E	General Physics Lab 2	16 students
	PHYS-112-10F	General Physics Lab 2	12 students
	PHYS-231-01	Optics	12 students
Fall 2010:	PHYS-111-01	General Physics 1	35 students
	PHYS-111-10D	General Physics Lab 1	15 students
	PHYS-111-10E	General Physics Lab 1	18 students
Spring 2010:	PHYS-112-01	General Physics 2	38 students
	PHYS-236-10A	Electronics Lab	16 students
	PHYS-236-10B	Electronics Lab	5 students
Fall 2009:	PHYS-111-01	General Physics 1	38 students
	PHYS-111-10A	General Physics Lab 1	17 students
	PHYS-111-10B	General Physics Lab 1	17 students
Summer 2009:	Passport Course	Functions: concepts and techniques	11 students
Spring 2009:	On Leave		
Fall 2008:	On Leave		
Spring, 2008:	PHYS-112-L05	General Physics 2	34 students
	PHYS-234-01	Electronics	13 students
	PHYS-236-01	Electronics Lab	13 students

Research Students and Honors Theses Advising:

Summer 2015	Joey McCourt, ’16	Summer Research
Spring 2007	Candida Desjardins, ’07.....	Fenwick Scholar Thesis, Reader.
Fall 2006	Candida Desjardins, ’07.....	Fenwick Scholar Thesis, Reader.
Summer 2006	Patrick Lenihan, ’07.....	Summer Research Summer Research Institute Fellowship.
Spring 2004	Lindsey Lavoie, ’04	Independent Study (PHYS-461).
	Dwayne Henclewood, ’04...	Independent Study (PHYS-461).
Summer 2002	Lindsey Lavoie, ’04	Summer Research Fisher Summer Research Fellowship.
Spring 2002	Kristi Miro, ’02	Undergraduate Research (PHYS-472).
Summer 2001	Kristi Miro, ’02	Summer Research Fisher Summer Research Fellowship.
Spring 2000	Anne Marie March, ’00	Honors Thesis, Advisor.
Fall 1999	Anne Marie March, ’00	Honors Thesis, Advisor.
Spring 1998	W. Daniel Mack, ’99	Undergraduate Research (PHYS-202).
Summer 1997	Andrew Lin, ’98	Summer Research stipend paid from a grant.
Fall 1996	Michael Kavanaugh, ’97	Undergraduate Research (PHYS-201).
Summer 1996	Holly Bedrosian, ’97	Summer Research Howard Hughes Summer Student Fellowship.
Summer 1996	Michael Kavanaugh, ’97	Summer Research stipend paid from a grant.

Ph.D. Dissertations Advising:

2000–2008	Xiaoyu Tian	Associate Advisor, Ph.D. Dissertation University of Connecticut and Northeastern University.
2003–2006	Ravi Chari	Associate Advisor, Ph.D. Dissertation University of Connecticut.
2000–2004	Jianxin Guo	Associate Advisor, Ph.D. Dissertation University of Connecticut.
1990–1993	Xiang-Qun Xie.....	Associate Advisor, Ph.D. Dissertation University of Connecticut.

Awards, Honors, and Professional Appointments:

2008-2016	Adjunct Professor, Center for Drug Discovery, Bouvé College of Health Sciences, Northeastern University.
2008-2009	Adjunct Professor, Graduate School, Univ. of Connecticut.
2006-2008	Adjunct Professor, Center for Drug Discovery, Bouvé College of Health Sciences, Northeastern University.
2006-2007	A Research/Publication award ($2,000) from the Committee on Fellowships, Research and Publication, College of the Holy Cross.
2003-2008	Adjunct Associate Professor, Graduate School, Univ. of Connecticut.
2001	Research Grant: "Magnetic Meta-Materials for RF and Power Electronics," from the U.S. Department of Defense through the Raytheon Corporation.
2000	Faculty for the 21st Century Project Kaleidoscope (PKAL)
1996	Faculty Fellowship for the Summer of 1996: "Studying Magnetic Properties of Yttrium Iron Nitrides at Cryogenic Temperatures," College of the Holy Cross.
1995–1997	Research Grant: "Using Mössbauer spectroscopy to study the nitrogen diffusion mechanism in RE-Fe-N permanent magnets," a Cottrell College Science Award (CC4022) from Research Corporation.

Professional Membership:

American Physical Society (member since 1983).

Society of Physics Students (member since 1986).

Sigma Pi Sigma, National Physics Honor Society (member since 1986).

Phi Beta Kappa (member since 1989).

Sigma Xi, The Scientific Research Society (member since 2000).

Elected and Appointed Committee Service:

2015–2016	Chemical Safety Committee
2012–2014	Student Life Council (SLC)
	Community Standards Board
	Faculty Mentor Program (5 mentees)
	Treasurer of Holy Cross Phi Beta Kappa Chapter
	Physics Department Webmaster
2011–2012	Academic Affairs Council (AAC)
	Committee on Nominations and Elections (CNE)
	Ad-hoc Committee on Implementing Academic Assessment.
	Faculty Mentor Program (8 mentees)
	Treasurer of Holy Cross Phi Beta Kappa Chapter
2010–2011	Ad-hoc Committee on Implementing Academic Assessment.
	Faculty Mentor Program (6 mentees)
	Treasurer of Holy Cross Phi Beta Kappa Chapter
2010 spring	External Program Review team member for Math/C.S. Department
2009–2010	Faculty Mentor Program (7 mentees)
	Academic Affairs Council (AAC)
	Treasurer of Holy Cross Phi Beta Kappa Chapter
2007–2008	Treasurer of Holy Cross Phi Beta Kappa Chapter
	Chemical Safety Committee
	Ad hoc Committee on Formative Support of Faculty Teaching
2006–2007	Physics Department Chair
	Secretary and Treasurer of Holy Cross Phi Beta Kappa Chapter
	Chemical Safety Committee
	Ad hoc Committee on Formative Support of Faculty Teaching
2005–2006	Physics Department Chair
	Secretary and Treasurer of Holy Cross Phi Beta Kappa Chapter
	Executive Committee Member, New England Section of APS
	Haberlin Building Committee, Haberlin Classroom Committee
2004–2005	Committee on Tenure and Promotion (CTP)
	Physics Department Chair
	Secretary and Treasurer of Holy Cross Phi Beta Kappa Chapter
	Member of Executive Committee, New England Section of APS
2003–2004	Committee on Tenure and Promotion (CTP)
	Secretary and Treasurer of Holy Cross Phi Beta Kappa Chapter
	College Radiation Safety Officer
2002–2003	Committee on Faculty Affairs (CFA)
	Committee on the Economic Status of the Faculty
	Secretary and Treasurer of Holy Cross Phi Beta Kappa Chapter
	College Radiation Safety Officer
2001–2002	Committee on Faculty Affairs (CFA), Committee on Appeals
	Committee on the Economic Status of the Faculty
	Secretary and Treasurer of Holy Cross Phi Beta Kappa Chapter
	College Radiation Safety Officer
2000–2001	On Leave, College Radiation Safety Officer
1997–1999	Member and Chair of Crompton Gold medal Selection Committee
1998–1999	Faculty Advisor for Society of Physics Students and Sigma Pi Sigma

Reviews of Manuscripts for Research Journals (since July 2000)**:**

Physica Status Solidi B, "Application of the Mössbauer Effect to the Study of Opto-acoustic Phenomena." Manuscript Number: pssb.201451391. Reviewed September 2014.

The Journal of Physical Chemistry, "Distinctive Spectral and Microscopic Features to Characterizing the Three-Dimensional Nanoscale Substructure of Igneous Aluminosilicates." Manuscript Number: jp-2014-06812y. Reviewed August 2014.

Biochimica et Biophysica Acta, "Interactions of the potent synthetic AT1 antagonist analog BV6 with membrane bilayers and mesoporous silicate matrices." Manuscript Number: BBAMEM-12-487. Reviewed January 2013.

Biochimica et Biophysica Acta, "Comparative study of the AT1 receptor prodrug antagonist candesartan cilexetil with other sartans on the interactions with membrane bilayers." Manuscript Number: BBAMEM-12-209. Reviewed June 2012.

Biochimica et Biophysica Acta, "Thermal, Dynamic and Structural Properties of Drug AT1 Antagonist Olmesartan in Lipid Bilayers." Manuscript Number: BBAMEM-11-198. Reviewed June 2011.

Journal of Applied Physics, "Mössbauer studies of Al doped $MnFe_{2-2x}O_4$ ($0.0 \leq x \leq 0.5$) ferrites." Manuscript Number: 080426DS-07. Reviewed October 2008.

Journal of Chemical Information and Modeling, "3D QSAR/CoMFA and CoMSIA Studies on Antileukemic Steroidal Esters Coupled with Conformationally Flexible Nitrogen Mustards." Manuscript Number: ci-2008-00240m. Reviewed August 2008.

Journal of Alloys and Compounds, "Synthesis and characterization of Ni-Zn ferrite/SiO_2 core-shell nanocomposites." Manuscript Number: JALCOM-D-07-03384. Reviewed March 2008.

Chemistry and Physics of Lipids, "Different perturbing ability between AT1 antagonist valsartan and a novel synthetic analog MMK3 as depicted by a combination of differential scanning calorimetry and Raman spectroscopy." Manuscript Number: CPL-D-07-00081. Reviewed September 2007.

Journal of Chemical Information and Modelling, "An integrated approach to reveal the putative bioactive conformations of flexible drug molecules: a critical aspect for rational drug design." Manuscript Number: ci-2007-00198c. Reviewed June 2007.

Thin Solid Films, "Synthesis, structure and conversion electron Mössbauer spectroscopy study of Mn-Zn ferrite nanocrystal thin films by electroless plating in aqueous solution." Manuscript Number: D-07-00010. Reviewed January 2007.

Journal of Materials Science, "Structural and thermal changes induced by mechanical alloying in a Fe-Ni based amorphous melt-spun alloy." Manuscript Number: JMSC5916. Reviewed December 2006.

Thin Solid Films, "Preparation of $DyPt_2$ films by using magneto controlled sputtering and phase transformation of Dy/Pt alloy films." Manuscript Number: D-06-00751. Reviewed June 2006.

Chemistry and Physics of Lipids, "The role of the anticancer drug vinorelbine in lipid bilayers using differential scanning calorimetry and molecular modeling." Manuscript Number: CPL-D-06-00035. Reviewed May 2006.

Journal of Molecular Graphics & Modelling, "A putative bioactive conformation for the altered peptide ligand of myelin basic protein and inhibitor of experimental autoimmune encephalomyelitis." Manuscript Number: JMG-383. Reviewed July 2005.

Thin Solid Films, "Carbon nitride as a buffer layer for magnetic thin films." Manuscript Number: 03-0301. Reviewed March 2004.

Thin Solid Films, "Iron oxide films produced on glass substrate by pulsed laser deposition." Manuscript Number: 03-0880. Reviewed October 2003.

Chemistry and Physics of Lipids, "Losartan's molecular basis of interaction with membranes and AT_1 receptor." Manuscript Number: PK03302. Reviewed February 2003.

Biochimica et Biophysica Acta, "Effects of non steroid anti-inflammatory drugs in membrane bilayers containing cholesterol." Manuscript Number: BBA RPM 509448. Reviewed February 2003.

Thin Solid Films, "Magnetic properties of sputtered soft magnetic Fe-Ni films with an uniaxial anisotropy." Manuscript Number: 03-0005. Reviewed February 2003.

IEEE Transactions on Magnetics, "Mössbauer and magnetic aftereffect studies of exchange coupled PrFeB-type nanocomposites." Manuscript Number: CS-02. Reviewed January 2003.

Journal of Magnetism and Magnetic Materials, "Structure and magnetic properties of RF thermally plasma synthesized Mn and Mn-Zn ferrite nanoparticles." Manuscript Number: DS-11. Reviewed September 2002.

Research Publications:

Book:

Mössbauer Effect in Lattice Dynamics. Berlin: Wiley-VCH (2007), hardcover, 409 pages.
Co-authored with Prof. Yi-Long Chen. ISBN: 978-3-527-40712-5.

Book Chapters:

"Mössbauer Spectroscopy," in *Encyclopedia of Applied Spectroscopy*. Edited by David L. Andrews, pp. 51-85. Published by Wiley-VCH, Weinheim, Germany (2009). ISBN: 978-3-527-40773-6.

"How to study drug:membrane interactions using differential scanning calorimetry, solid state NMR and small angle x-ray diffraction" in *Recent Advances in the Study of Neurotransmitter Receptors.* Edited by B.N. Dhawan, R.C. Srimal, R. Raghubir, and R.S. Rapaka, pp. 329-348. Published by Central Drug Research Institute, Lucknow, India (1994).
Co-authored with Prof. A. Makriyannis. ISBN: 81-85042-12-8.

"Combined use of solid-state nuclear magnetic resonance spectroscopy, small-angle X-ray diffraction, and differential scanning calorimetry in studies of cannabinoid-membrane interactions" in *Emerging Technologies and New Directions in Drug Abuse Research* (National Institute on Drug Abuse Research Monograph 112), pp. 106-128. Published by the U.S. Department of Health and Human Services, Rockville, Maryland. (1992).
Co-authored with A. Makriyannis and T. Mavromoustakos. ISBN: 0-16-035851-5.

"The molecular features of membrane perturbation by anaesthetic steroids: A study using differential scanning calorimetry, small angle X-ray diffraction and solid state ^{2}H NMR" in *Steroids and Neuronal Activity* (Ciba Foundation Symposium 153), pp. 172-189. John Wiley & Sons, Chichester, England. (1990).
Co-authored with A. Makriyannis and T. Mavromoustakos. ISBN: 0-471-92689-2.

"Solid state nuclear magnetic resonance spectroscopy in the study of drug:membrane interactions, potential applications with antiarrhythmic agents" in *Molecular and Cellular Mechanisms of Antiarrhythmic Agents*, edited by Luc Hondeghem, pp. 293-305. Futura Publishing Company, Inc., Mount Kisco, NY. (1989).
Co-authored with Prof. A. Makriyannis. ISBN: 0879933798.

Journal Articles:

59. Jason J. Guo, De-Ping Yang, Xiaoyu Tian, V. Kiran Vemuri, Dali Yin, Chen Li, Richard I. Duclos Jr, Lingling Shen, Xiaoyu Ma, David R. Janero, Alexandros Makriyannis. **17β-Estradiol (E2) in Membranes: Orientation and Dynamic Properties.** *Biochimica et Biophysica Acta* **1858**, 344–353 (2016). doi:10.1016/j.bbamem.2015.11.015
58. Sergiy Tyukhtenko, Karrie Chan, Rubin Jiang, Han Zhou, Richard W. Mercier, De-Ping Yang, Alexandros Makriyannis and Jason J. Guo. **Hydrogen-Bonded His93 As a Sensitive Probe for Identifying Inhibitors of the Endocannabinoid Transport Protein FABP7.** *Chemical Biology & Drug Design* **85**, 534–540 (2015). doi: 10.1111/cbdd.12440

57. Jianqin Zhuang, De-Ping Yang, Xiaoyu Tian, Spyros P. Nikas, Rishi Sharma, Jason Jianxin Guo and Alexandros Makriyannis. **Targeting the Endocannabinoid System for Neuroprotection: A ^{19}F-NMR Study of a Selective FAAH Inhibitor Binding with an Anandamide Carrier Protein, HSA.** *Journal of Pharmaceutics & Pharmacology* **1**, 002 (2013).
56. Jianqin Zhuang, De-Ping Yang, Spyros P. Nikas, Jianhong Zhao, Jianxin Guo, and Alexandros Makriyannis. **The Interaction of Fatty Acid Amide Hydrolase (FAAH) Inhibitors with an Anandamide Carrier Protein Using ^{19}F-NMR.** *The AAPS Journal* **15,** 477–482 (2013)**.** DOI: 10.1208/s12248-013-9455-9.
55. Xiaoyu Tian, Spiro Pavlopoulos, De-Ping Yang, and Alexandros Makriyannis. **The Interaction of Cannabinoid Receptor Agonists, CP55940 and WIN55212-2 with Membranes Using Solid State ^{2}H NMR.** *Biochimica et Biophysica Acta* **1808**, 2095–2101 (2011).
54. Yi-Long Chen and De-Ping Yang. **An Analytical Expression for Fractional Absorption in Mössbauer Spectroscopy.** *IEEE Transactions on Magnetics*, **45**, 3901–3904 (2009).
53. Jianxin Guo, De-Ping Yang, Ravi Chari, Xiaoyu Tian, Spiro Pavlopoulos, Dai Lu, and Alexandros Makriyannis. **Magnetically Aligned Bicelles to Study the Orientation of Lipophilic Ligands in Membrane Bilayers.** *Journal of Medicinal Chemistry* **51**, 6793–6799 (2008).
52. Xiaoyu Tian, Jianxin Guo, Fenmei Yao, De-Ping Yang, and Alexandros Makriyannis. **The Conformation, Location, and Dynamic Properties of the Endocannabinoid Ligand Anandamide in a Membrane Bilayer.** *J. Biol. Chem.*, **280**, 29788–29795 (2005).
51. Shihui Ge, Zongtao Zhang, Mingzhong Wu, Y.D. Zhang, D.P. Yang, J.I. Budnick, and W.A. Hines. **Structure, Magentization and Mössbauer Study of Nanostructured $Ni_{0.5}Zn_{0.5}Fe_2O_4$ Ferrite Powders.** *Materials Research Society Symposium Proceedings* **755**, 141-146 (2003).
50. Jianxin Guo, Spiro Pavlopoulos, Xiaoyu Tian, Dai Lu, Spyros P. Nikas, De-Ping Yang and Alexandros Makriyannis. **Conformational Study of Lipophilic Ligands in Phospholipid Model Membrane Systems by Solution NMR**. *Journal of Medicinal Chemistry* **46**, 4838-4846 (2003).
49. D.P. Yang, L.K. Lavoie, Y.D. Zhang, Z.T. Zhang and S. Hui. **Mössbauer spectroscopic and x-ray diffraction studies of structural and magnetic properties of heat-treated $(Ni_{0.5}Zn_{0.5})Fe_2O_4$ nanoparticles.** *Journal of Applied Physics* 93, 7492-7494 (2003).
48. K.Y. Jiang, X.L. Yang, Y.T. Yuan, L.S. Mao, and D.P. Yang. **A Mössbauer effect study on the structural components in potassium-promoted iron oxide catalysts for dehydrogenation of ethylbenzene.** *Hyperfine Interactions*, **139/140**, 97-105 (2002).
47. Z.J. Zhao, F. Bendjaballah, X.L. Yang and D.P. Yang. **Longitudinally driven magneto-impedance effect in annealed Fe-based nanocrystalline powder materials.** *Journal of Magnetism and Magnetic Materials* **246**, 62-66 (2002).
46. D.P. Yang, Y.D. Zhang, and S. Hui. **Mössbauer spectroscopic and x-ray diffraction studies of Fe/SiO_2 nanocomposite soft magnetic materials.** *Journal of Applied Physics* **91**, 8198-8200 (2002).

45. Y.D. Zhang, W.A. Hines, J.I. Budnick, De-Ping Yang, B.G. Shen, and Z.H. Cheng. **Study of spin-reorientation in $Tm_2Fe_{17-x}Ga_x$ and $Sm_2Fe_{17-x}Ga_x$.** *IEEE Transactions on Magnetics* **37**, 2603-2605 (2001).
44. K.Y. Jiang, X.L. Yang, G.T. Shen, L. Zeng, and D.P. Yang. **Correlation between MI effect and transverse anisotropy in stress-annealed nanocrystalline alloys: a Mössbauer effect study.** *Physica Status Solidi (a)* 186, 63-69 (2001).
43. Joseph A. Akkara, Jianzhao Wang, De-Ping Yang, and Kenneth E. Gonsalves. **Hematin-catalyzed polymerization of phenol compounds.** *Macromolecules*, **33**, 2377-2382 (2000).
42. G. Chen, X.L. Yang, L. Zeng, J.X. Yang, F.F. Gong, D.P. Yang, and Z.C. Wang. **High temperature giant magnetoimpedance effect in Fe-based nanocrystalline alloy.** *Journal of Applied Physics*, **87**, 5263-5265 (2000).
41. Z.C. Wang, F.F. Gong, X.L. Yang, L. Zeng, G. Chen, J.X. Yang, S.M. Qian, and D.P. Yang. **Longitudinal driven giant magneto-impedance effect in stress-annealed Fe-based nanocrystalline ribbons.** *Journal of Applied Physics*, **87**, 4819-4821 (2000).
40. D.P. Yang, J.I. Budnick, W.A. Hines, and Y.D. Zhang. **Mössbauer spectroscopy study of the rhombohedral phase $Y_2Fe_{17}Y_x$ with intermediate nitrogen content ($0 \le x \le 2.8$).** *Journal of Applied Physics*, 85, 4651-4653 (1999).
39. N.X. Shen, J.I. Budnick, W.A. Hines, Y.D. Zhang, D.P. Yang, and Y.G. Duan. **Structural and magnetic properties of ammonia-nitrided Y_2Fe_{17}.** *Journal of Physics: Condensed Matter*, 11, 833-845 (1999).
38. N.X. Shen, T.K. Daeubler, J.I. Budnick, W.A. Hines, Y.D. Zhang, D.P. Yang, B.G. Shen, and Z.H. Cheng. **X-ray diffraction, magnetization and nuclear magnetic resonance study of $Y_2Fe_{17-x}Ga_x$.** *Journal of Physics: Condensed Matter*, 10, 7133-7144 (1998).
37. T. Mavromoustakos, E. Theodoropoulou, and De-Ping Yang, **The use of high resolution solid state NMR spectroscopy and differential scanning calorimetry to study interactions of anaesthetic steroids with the membrane.** *Biochimica et Biophysica Acta*, **1328**, 65-73 (1997).
36. D.P. Yang, Y.D. Zhang, W.A. Hines, and J.I. Budnick. **Quantitative analysis of the nitrogenation process in $Y_2Fe_{17}N_x$ based on a two-region configuration.** *Journal of Applied Physics*, **81**, 4554-4556 (1997).
35. T. Mavromoustakos, E. Theodoropoulou, D.P. Yang, S.Y. Lin, M. Koufaki, and A. Makriyannis. **The conformational properties of the antineoplastic ether lipid 1-thiohexadecyl-2-*O*-methyl-*S*-glycero-3-phosphocholine.** *Chemistry and Physics of Lipids*, **84**, 21-34, (1996).
34. T. Mavromoustakos, D.P. Yang, and A. Makriyannis. **Topography and thermotropic properties of cannabinoids in brain sphingomyelin bilayers.** *Life Sciences*, **59**, 1969-1979 (1996)
33. T. Mavromoustakos, E. Theodoropoulou, D. Papahatjis, T. Kourouli, D.P. Yang, M. Trumbore and A. Makriyannis. **Studies on the thermotropic effects of cannabinoids on phosphatidylcholine bilayers using differential scanning calorimetry and small angle X-ray diffraction.** *Biochimica et Biophysica Acta*, **1281**, 235-244 (1996).
32. Y.D. Zhang, J.I. Budnick, W.A. Hines, and D.P. Yang. **Study of the nitrogen diffusion mechanism in R_2Fe_{17}.** *Journal of Applied Physics*, **79**, 4596-4598 (1996).

31. T. Mavromoustakos, D.P. Yang, and A. Makriyannis. **Effects of the anesthetic steroid alphaxalone and its inactive Δ^{16}-analog on the thermotropic properties of membrane bilayers. A model for membrane perturbation.** *Biochimica et Biophysica Acta*, **1239**, 257-264 (1995).
30. T. Mavromoustakos, D.P. Yang, E. Theodoropoulou, and A. Makriyannis. **Use of molecular graphics as an aid in the study of conformational properties of aminoalkylindole pravadoline and the analgesic cannabinoid CP-55,940.** *Review of Clinical Pharmacology and Pharmacokinetics*, **9**, 113-116 (1995).
29. Y.D. Zhang, D.P. Yang, J.I. Budnick, , W.A. Hines, W.Q. Wu, N.X. Shen, D.M. Pease, W.G. Fernando, and T.D. Xiao. **On the nitrogen occupation in the Y_2Fe_{17} lattice.** *Scripta Metallurgica et Materialia*, **33**, 1817-1824 (1995).
28. Y.D. Zhang, J.I. Budnick, W.A. Hines, and D.P. Yang. **Nitrogen diffusion mechanism in the R_2Fe_{17} lattice.** *Applied Physics Letters*, **67**, 208-210 (1995).
27. Y.D. Zhang, J.I. Budnick, D.P. Yang, G.W. Fernando, W.A. Hines, T.D. Xiao, and T. Manzur. **Nitrogen diffusion and distribution in the Y_2Fe_{17} lattice.** *Physical Review B*, **51**, 12091-12099 (1995).
26. T. Mavromoustakos, D.P. Yang, and A. Makriyannis **Small angle X-ray diffraction and differential scanning calorimetry studies on *O*-methyl-(-)-Δ^8-tetrahydrocannabinol and its 5′ iodinated derivative in membrane bilayers.** *Biochimica et Biophysica Acta*, **1237**, 183-188 (1995).
25. T. Mavromoustakos, D.P. Yang, E. Theodoropoulou, and A. Makriyannis. **Studies of the conformational properties of the cannabimimetic aminoalkylindole pravadolin using NMR and molecular modeling.** *European Journal of Medicinal Chemistry*, **30**, 227-234 (1995).
24. T. Mavromoustakos, D.P. Yang, and A. Makriyannis. **Topography of alphaxalone and Δ^{16}-alphaxalone in membrane bilayers containing cholesterol.** *Biochimica et Biophysica Acta*, **1194**, 69-74 (1994).
23. X.Q. Xie, D.P.Yang, L.S. Melvin, and A. Makriyannis. **Conformational analysis of the prototype nonclassical cannabinoid CP-47,497 using 2D NMR and computer molecular modeling.** *Journal of Medicinal Chemistry*, **37**, 1418-1426 (1994).
22. D.P. Yang, T. Mavromoustakos, and A. Makriyannis. **Small angle X-ray diffraction studies of (-)-Δ^8-tetrahydrocannabinol and its *O*-methyl analog in membranes.** *Life Sciences*, **53**, PL117-122 (1993).
21. D.P. Yang, T. Mavromoustakos, K. Beshah, and A. Makriyannis. **Amphipathic interactions of cannabinoids with membranes. A comparison between Δ^8-THC and its *O*-methyl analog using differential scanning calorimetry, X-ray diffraction and solid state ^{2}H-NMR.** *Biochimica et Biophysica Acta*, **1103**, 25-36 (1992).
20. D.P. Yang, W.A. Hines, W.G. Clark, F.L.A. Machado, L.A. Azevedo, B.C. Giessen and M.X. Quan. **Magnetization study of the I-$Al_{80}Mn_{20}$ and T-$Al_{78}Mn_{22}$ quasicrystalline phases.** *Journal of Magnetism and Magnetic Materials*, **109**, 1-6 (1992).
19. D.P. Yang, A. Banijamali, A. Charalambous, G. Marciniak, and A. Makriyannis. **Solid state ^{2}H-NMR as a method for determining the orientation of cannabinoid analogs in membranes.** *Pharmacology Biochemistry & Behavior*, **40**, 553-557 (1991).

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