Curriculum Vitae

De-Ping Yang, Ph.D.

Associate Professor
Physics Department
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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 and X-ray) to study novel magnetic materials

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 – Present:	Associate Professor
2000 – 2001:	Sabbatical Leave
2004 – 2007:	Physics Department Chair
2007 – 2008:	Eligible for Sabbatical Leave (postponed until 2008-2009)

Courses Taught Since Coming to Holy Cross (in reverse chronological order):

Fall 2007:	PHYS-111-L05	General Physics 1	29 students
	PHYS-111-10E	General Physics Lab 1	16 students
	PHYS-111-10G	General Physics Lab 1	18 students
	PHYS-111-10H	General Physics Lab 1 **(overload)**	19 students
Spring 2007:	PHYS-112-02	General Physics 2	38 students
	PHYS-231-01	Optics	16 students
	HNRS-299-03	Honors Seminar **(overload)**	16 students
Fall 2006:	PHYS-111-02	General Physics 1	37 students
	PHYS-113-06	General Physics Lab 1 **(overload)**	18 students
Spring 2006:	PHYS-112-04	General Physics 2	42 students
Fall 2005:	PHYS-111-02	General Physics 1	32 students
	PHYS-111-04	General Physics 1 **(overload)**	32 students
	PHYS-113-07	General Physics Lab 1 **(overload)**	12 students
	PHYS-225-01	Modern Physics Lab	9 Students
Spring 2005:	PHYS-114-01	General Physics Lab 2	11 students
	PHYS-114-03	General Physics Lab 2	17 students
	PHYS-114-06	General Physics Lab 2 **(overload)**	18 students
	PHYS-233-01	Optics Lab	13 students
Fall 2004:	PHYS-113-01	General Physics Lab 1	20 students
	PHYS-113-03	General Physics Lab 1	18 students
	PHYS-113-06	General Physics Lab 1 **(overload)**	20 students
Spring 2004:	PHYS-112-03	General Physics 2	34 students
	PHYS-114-01	General Physics Lab 2	11 students
	PHYS-114-03	General Physics Lab 2	17 students
	PHYS-236-02	Electronics Lab	6 students
	PHYS-461-03	Independent Study	2 students
Fall 2003:	PHYS-111-03	General Physics 1	34 students
	PHYS-113-01	General Physics Lab 1	18 students
Spring 2003:	PHYS-112-03	General Physics 2	37 students
	PHYS-231-01	Optics	7 students
	PHYS-233-01	Optics Lab	7 students
Fall 2002:	PHYS-111-03	General Physics 1	38 students
	PHYS-113-01	General Physics Lab 1	16 students
	PHYS-113-02	General Physics Lab 1	20 students
Spring 2002:	PHYS-112-03	General Physics 2	18 students
	PHYS-114-02	General Physics Lab 2	12 students

	PHYS-356-01	Experimental Solid State Physics	4 students
	PHYS-472-04	Undergraduate Research	1 student
Fall 2001:	PHYS-111-03	General Physics 1	29 students
	PHYS-113-02	General Physics Lab 1	10 students
	PHYS-231-01	Optics	4 students
Spring 2001:	On Leave		
Fall 2000:	On Leave		
Spring 2000:	PHYS-022-01	General Physics 2	17 students
	PHYS-136-01	Electronics Lab	7 students
	CISS-295-03	Honors Seminar	9 students
Fall 1999:	PHYS-021-01	General Physics 1	27 students
	PHYS-133-01	Electromagnetic Theory 1	12 students
	PHYS-161-01	Experimental Solid State Physics	5 students
Spring 1999:	PHYS-022-02	General Physics 2	34 students
	PHYS-115-01	Optics	8 students
	PHYS-116-01	Optics Lab	6 students
Fall 1998:	PHYS-021-02	General Physics 1	32 students
	PHYS-161-01	Experimental Solid State Physics	4 students
	PHYS-050-01	Topics: Light, Colors and Vision	44 students
Spring 1998:	PHYS-022-02	General Physics 2	32 students
	PHYS-118-01	Methods of Physics	5 students
	PHYS-136-01	Electronics Lab	11 students
	PHYS-202-01	Undergraduate Research	1 student
Fall 1997:	Junior Faculty Research Leave.		
Spring 1997:	PHYS-022-01	General Physics 2	32 students
	PHYS-111-01	Modern Physics Lab	5 students
	PHYS-134-01	Electromagnetic Theory 2	4 students
Fall 1996:	PHYS-021-01	General Physics 1	34 students
	PHYS-161-01	Experimental Solid State Physics	2 students
	PHYS-050-02	Topics: Light, Colors and Vision	21 students
	PHYS-201-01	Undergraduate Research	1 student
Spring 1996:	PHYS-022-01	General Physics 2	21 students
	PHYS-134-01	Electromagnetic Theory 2	5 students
	PHYS-136-01	Electronics Lab	14 students
Fall 1995:	PHYS-021-01	General Physics 1	30 students
	PHYS-037-01	Second Year Physics Lab	8 students
	PHYS-037-02	Second Year Physics Lab	2 students
	PHYS-133-01	Electromagnetic Theory 1	12 students
Spring 1995:	PHYS-022-01	General Physics 2	26 students
	PHYS-116-01	Optics Lab	14 students
	PHYS-134-01	Electromagnetic Theory 2	2 students
Fall 1994:	PHYS-021-01	General Physics 1	37 students
	PHYS-037-01	Second Year Physics Lab	8 students
	PHYS-037-02	Second Year Physics Lab	4 students
	PHYS-133-01	Electromagnetic Theory 1	10 students

Research Students and Honors Theses Advising:

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:

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:

2006-2007	A Research/Publication award ($2,000) from the Committee on Fellowships, Research and Publication, College of the Holy Cross.
2003-2009	Adjunct Associate Professor, Graduate School, Univ. of Connecticut.
2006-2010	Adjunct Professor, Center for Drug Discovery, Bouvé College of Health Sciences, Northeastern University.
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:

2007–2008	Chemical Safety Committee College Hill Community Advisory Committee
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 American Physical Society 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 American Physical Society
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
1998 Spring	Secretary (recorder) of Academic Affairs Council (AAC)
1997 Summer	Organizing Committee of Undergraduate Research Symposium
1996–1998	Academic Affairs Council (AAC)
1995–1997	Physics Department Graduate Studies Advisor.

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

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.

Thin Solid Films, "Experimental and theoretical hyperfine properties of Fe/Ag multilayers." Manuscript Number: 01-0765. Reviewed November 2001.

Biochimica et Biophysica Acta, "Differential membrane fluidation by active and inactive cannabinoid analogs." Manuscript Number: BBA RPM 503187. Reviewed July 2000.

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," under contract and to be published in *Encyclopedia of Applied Spectroscopy*, editor: David L. Andrews (University of East Anglia, UK), Wiley-VCH (2008).

"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:

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 ($0 \leq x \leq 2.8$).** *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).
18. T. Mavromoustakos, D.P. Yang, W. Broderick, D. Fournier, and A. Makriyannis. **Small angle X-ray diffraction studies on the topography of cannabinoids in synaptic plasma membranes.** *Pharmacology Biochemistry & Behavior*, **40**, 547-552 (1991).
17. D.P. Yang, W.A. Hines, C.L. Tsai, B.C. Giessen, and F.C. Lu. **Magnetization and NMR study of the La-Al metallic glass system.** *Journal of Applied Physics*, **69**, 6225-6227 (1991).
16. A. Makriyannis, D.P. Yang, R.G. Griffin, and S.K. Das Gupta. **The perturbation of model membranes by (-)-Δ^{9}-tetrahydrocannabinol. Studies using solid-state ^{2}H- and ^{13}C-NMR.** *Biochimica et Biophysica Acta*, **1028**, 31-42 (1990).
15. T. Mavromoustakos, D.P. Yang, A. Charalambous, L.G. Herbette, and A. Makriyannis. **Study of the topography of cannabinoids in model membranes using X-ray diffraction.** *Biochimica et Biophysica Acta*, **1024**, 336-344 (1990).
14. W.A. Hines, D.P. Yang, W.G. Clark, J.M. Moore, J. Sanny, W.H. Wong, and M. Schlott. **Magnetization of the heavy fermion system $Ce_{1-x}Gd_xAl_3$ for x = 0-0.005.** *Physics B*, **163**, 632-634 (1990).
13. J.M. Moore, W.G. Clark, J. Sanny, W.H. Wong, W.A. Hines, D.P. Yang, and M. Schlott. **Effect on small concentrations of Gd spins of the Knight shift and nuclear spin relaxation of ^{27}Al in the heavy fermion system $CeAl_3$.** *Physics B*, **163**, 522-526 (1990).
12. A. Makriyannis, A. Banijamali, H.C. Jarrell, and D.P. Yang. **The orientation of (–)-Δ^{9}-tetrahydrocannabinol in DPPC bilayers as determined from solid state ^{2}H-NMR.** *Biochimica et Biophysica Acta*, **986**, 141-145 (1989).

11. Y.D. Zhang, J.I. Budnick, D.P. Yang, E. Potenziani II, A.T. Pedziwiatr, W.E. Wallace, and M. Sagawa. **Magnetic field dependence of ^{11}B and ^{57}Fe NMR in $Nd_2Fe_{14}B$ compounds.** *Journal of Magnetism and Magnetic Materials*, **79**, 136-142 (1989).
10. J.I. Budnick, B. Chamberland, D.P.Yang, Ch. Niedermayer, A. Golnik, E. Recknagel, M. Rossmanith, A. Weidinger. **Dependence of the Nèel-temperatures of La_2CuO_4 on Sr-doping studied by muon spin rotation.** *Europhysics Latters*, **5**, 651-656 (1988).
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(Revised December 2007)