CURRICULUM VITAE

Douglass F. Taber
Department of Chemistry
University of Delaware
Newark, DE 19716
cell/text: (302) 650-2185
FAX: (419) 517-1554
Email: Taberdf@udel.edu
Web: http://valhalla.chem.udel.edu

Home Address: 568 North 23rd Street
Philadelphia, PA 19130
(215) 851-8090

Date and Place of Birth: November 11, 1948: Berkeley, CA

Marital Status: Married, six children

Education:

1970 B.S. Stanford University (Honors in Chemistry)

1974 Ph.D. Columbia University (Organic Chemistry)

Research Interests:

1969-70 Undergraduate Research, L. J. Altman, Stanford University: Preparation of 9,10-cyclopentaphenanthrene; Preparation and reactions of 1,1-dihaloepoxides.

1970-74 Graduate Research, G. Stork, Columbia University: Intramolecular Michael reactions to produce cis-fused bicyclic systems; Applications to the synthesis of gibberellins.

1974-75 Postdoctoral Research, B. M. Trost, University of Wisconsin: Applications of sulfonium chemistry to natural products synthesis.

1975 - Current Research: Stereoselective synthesis of natural products; New methods in synthetic organic chemistry; Computational organometallic chemistry.

Professional Experience:

1974-75 Research Associate, Department of Chemistry, University of Wisconsin

1975-77 Research Instructor, Department of Pharmacology, Vanderbilt University

| | |
|---|---|
| 1977-82 | Assistant Professor, Department of Pharmacology, Vanderbilt University |
| 1978-82 | Research Assistant Professor, Department of Chemistry, Vanderbilt University |
| 1982-84 | Assistant Professor, Department of Chemistry, University of Delaware |
| 1984-93 | Associate Professor, Department of Chemistry, University of Delaware |
| 1993- | Professor, Department of Chemistry, University of Delaware |

Professional Service:

| | |
|---|---|
| 1985 | NCI SBIR Study Section, May 1985 |
| 1986 | Chairman, Local Organizing Committee, 29th National Organic Chemistry Symposium, Newark, DE 1985 |
| 1984-87 | Consultant, Helix Associates, Newark, DE (2 days/year) |
| 1982-1992 | Consultant, Division of Clinical Pharmacology, Vanderbilt University (5 days/year) |
| 1985-88 | Invited monthly column, "Organic Chemistry Review," Industrial Chemist |
| 1987-2009 | Wallace Carothers Award Committee, Delaware Section, American Chemical Society |
| 1988-89 | Visiting Research Scientist, Du Pont Central Research |
| 1991 | NIH SBIR Study Section, July 1991 |
| 1991 | State Department/AID Review Panel, Oct 1991 |
| 1992 | Visiting Professor, Universidad Autonoma Nuevo Leon, Monterrey, Mexico June 7-13 |
| 1992 | Ad Hoc member, Medicinal Chemistry A Study Section, NIH Oct 14-16 |
| 1993 | Member, Medicinal Chemistry Special Study Section, NIH, Nov 30 |
| 1992-93 | Expert witness, Phoenix Petroleum, King of Prussia, PA |
| 1993-94 | Expert witness, Rothwell, Figg, Ernst and Kurz, Washington, D.C. |
| 1994 | Consultant, Bausch & Lomb Pharmaceuticals, Tampa, Florida |

| | |
|---|---|
| 1995-2002 | Consultant, Dupont Company |
| 1995-96 | Visiting Research Scientist, Dupont Merck Pharmaceuticals |
| 1996 | Symposium Organizer, "Guided Inquiry in the Organic Lecture and Laboratory", 14th Biennial Conference on Chemical Education, Clemson University |
| 1998 | Member, Fellowship Review Panel, NIH, March 23-24 |
| 1998 | Symposium Organizer, "Practical Applications of Computational Organometallic Chemistry", American Chemical Society National Meeting, Boston, August 26 |
| 2000 | Reviewer, National Research Council |
| 2000 | Expert Witness, Kenyon & Kenyon, New York, NY |
| 2001 6-10 | Visiting Professor, South China Agricultural University, Guangzhou, Jan. |
| 2001-03 | Short Course, "Intermediate Organic", Dupont Agricultural Chemistry. |
| 2003 | Member, Fellowship Review Panel, NIH, July 8-9, Nov. 12 |
| 2003 | Member, Ernest Guenther Award Canvassing Committee, ACS |
| 2004 | Member (ad hoc), BNP Study Section, NIH, March 8-9 |
| 2007 | Expert Witness, Sterne, Kessler, Goldstein, Fox, Washington, DC |
| 2007 | ACS short course, "Recent Developments in Organic Synthesis", New Brunswick, NJ, June 2007 |
| 2007 | ACS short course, "Recent Developments in Organic Synthesis", Boston, MA August 2007 |
| 2009 | National Defense Science and Engineering Graduate Fellowship review panel, Arlington, VA |
| 2009-2010 | Expert Witness, Montgomery, McCracken, Walker & Rhoads, Philadelphia, PA |
| 2010 | Expert Witness, Winston & Strawn, Chicago, IL |

2010 Expert Witness, Morrison & Foerster, San Diego, CA

Honors and Awards:

1967-70 Dean's List, Stanford University

1968 NSF Undergraduate Research Participant

1969 Elected to Phi Lambda Upsilon

1970-73 NSF Graduate Fellow

1974 Elected to Sigma Xi

1976-84 National Institutes of Health Research Grant, CA 34383

1978 Invited participant, National Science Foundation Workshop on Organic Synthesis and Natural Products Chemistry

1979-83 Petroleum Research Fund AC Research Grants

1980-81 Research Grant, Vanderbilt University Research Council

1983-86 National Institutes of Health Research Grant, GM 32027

1983-87 Fellow of the Alfred P. Sloan Foundation

1983 Research Grant, University of Delaware Research Foundation

1983-86 National Science Foundation Research Grant, CHE 8306692

1984 Invited participant, Symposium, "Latest Trends in Organic Synthesis," Blacksburg, VA

1985 National Science Foundation Travel Grant, IUPAC Symposium on Organometallics in Organic Synthesis, Kyoto, Japan

1985-87 Petroleum Research Fund A/C Research Grant

1988 National Science Foundation Travel Grant, IUPAC Symposium on Natural Products Chemistry, Kyoto, Japan

1989 Invited speaker, 5$^{th}$ International Symposium on Carbene Chemistry, Kyoto, Japan

1991 National Science Foundation Travel Grant, IUPAC Symposium on Organometallics in Organic Synthesis, Utrecht

1991-93 Research Grant, Allergan, Inc., Irvine, CA
($50,828/year) one postdoctoral

1991-93 Petroleum Research Fund A/C Research Grant
($20,000/year) one Ph.D. student

1991-93 Research Contract, DoD/Aberdeen, MD
($25,000/first year, $49,600 second year) one Ph.D. student

1991-92 Research Contract, NIH/NiAAA, Bethesda, MD
($25,000/year) one Ph.D. student

1992-95 National Institutes of Health research grant, GM 46762, "Synthesis of Taxol" $171,410/year, two postdoctorals, one graduate student

1993-11 National Institutes of Health research grant, GM42056 "Structural Investigation of Prostaglandin Conjugates", $114,461/year, one postdoctoral, one Ph.D. student (NIH MERIT Award).

1993 Invited speaker, ACS National Meeting, Denver

1993 National Science Foundation Travel Grant, Joint USA-Japan-China Symposium on Catalysis, Beijing

1993 Invited speaker, Scientific Conference on Chemical Defense Research, Aberdeen, MD

1994 Research Grant, Zeneca Pharmaceuticals, $15,000

1995 Invited speaker, Symposium on Organometallics in Organic Synthesis, 78th Canadian Society for Chemistry Conference and Exhibition

1995-1996 National Science Foundation, GOALI program, $60,000 Sabbatical support

1995-97 Petroleum Research Fund A/C Research Grant
($25,000/year) one Ph.D. student

1996 Invited speaker, 11th International Conference on Organic Synthesis (ICOS-11), Amsterdam

1997 Invited speaker, South East Regional Meeting, American Chemical Society

1997 Invited speaker, IUPAC International Conference on Biodiversity and Bioresources, Phuket, Thailand

1998 Organizer, "Practical Applications of Computational Organometallic Chemistry", National American Chemical Society meeting, Boston

1998 Invited speaker, Symposium, "Latest Trends in Organic Synthesis," Gainesville, FL

1999 Invited speaker, Middle Atlantic Regional Meeting, American Chemical Society

1999 Invited speaker, Organometallics in Organic Synthesis (OMCOS 10), Versailles, France July 21

1999 Invited speaker, Gordon Research Conference on Natural Products, Henniker, NH

1999-2000 Petroleum Research Fund A/C Research Grant ($30,000/year) one Ph.D. student

1999 Invited speaker, South East Regional Meeting, American Chemical Society

2000-2008 National Institutes of Health research grant, GM 60287, "Physiologically Active Natural Products" $256,700 / year, one postdoctoral, three Ph.D. students

2000 Invited speaker, 11th International Conference on Organic Synthesis (ICOS-13),Warsaw

2001 Invited speaker, Organometallics in Organic Synthesis (OMCOS 11), Taipei, Taiwan

2003 Elected Fellow, American Association for the Advancement of Science

2004 Invited speaker, ACS National Meeting, Anaheim, March 2004

2004 Invited speaker, International Conference, Chemistry Biology Interface: Synergistic New Frontiers, Delhi, India, Nov. 22-77, 2004.

2005 Invited speaker, Symposium on the Chemistry and Biology of Biomolecules, Montpellier, France March 20-25, 2005.

2005 Invited speaker, Singapore International Chemical Conference 4 Dec. 8-10, 2005.

2006 Invited speaker, ACS National Meeting, Atlanta, March 2006

2006 Invited speaker, ACS Middle Atlantic Regional Meeting, Hershey, PA June 2006

2007 Invited speaker, Symposium, C-H Activation in Organic Synthesis, Loughborough, England April 2007

2008 Lead speaker, Symposium "Innovations in the Organic Chemistry Curriculum" 20th Biennial Conference on Chemical Education, Bloomington, IN July 2008

2009 Invited speaker, 2nd Pennsylvania Organic Chemistry Curriculum Development Conference, Immaculata University, Immaculata, PA May 27th

2009 Invited speaker, meeting on the Schweinfurthins and Related Natural Products, NIH/Frederick, December 11, 2009

2010 Invited speaker, 1st Annual Congress of Catalytic Asymmetric Synthesis, Beijing

2010 Invited speaker, ACS National Meeting, Boston

2011 Invited speaker, Fifth International Symposium "The Chemistry of Aliphatic Diazo Compounds: Advances and Outlook" St. Petersburg, Russia

2011 Invited speaker, Gordon Research Conference on Natural Products

2011 Allan R. Day Award, Philadelphia Organic Chemists Club

Publications:

1. Taber, D. F.: A simple synthesis of 2-alkyl cyclohexenones. J. Org. Chem. 41: 2649, 1976.

2. Trost, B. M.; Taber, D. F.; and Alper, J. B.: An approach to the stereocontrolled creation of an acyclic side chain of some natural products. Tetrahedron Lett.: 3857, 1976.

3. Taber, D. F.: Cyclopentanone ring formation with control of side chain stereochemistry: a simple stereoselective route to the prostaglandins. J. Amer. Chem. Soc. 99: 3513, 1977.

4. Harbison, R. D.; MacDonald, J.S.; Sweetman, B. J.; ;Taber, D. F. Proposed mechanism for diphenylhydantoin-induced teratogenesis. Pharmacologist 19: 179-179 (1977).

5. Taber, D. F., and Lee, C. H.: The preparation of dimethyl (7-$^{2}H_{3}$-2-oxoheptyl) phosphonate, a reagent for the synthesis of 20-$^{2}H_{3s}$ prostaglandins and thromboxanes. J. Labelled Compounds and Radiopharmaceuticals 14: 599, 1978.

6. Stork, G.; Taber, D. F.; and Marx, M.: Intramolecular Michael addition as a route to angularly substituted cis hydroindanes. Tetrahedron Lett.: 2445, 1978.

7. Wilson, J. T.; Howell, R. L.; Holladay, M. W.; Brillis, G. M.; Chrastil, H.; Watson, J. T.; and Taber, D. F.: Gentisuric acid (GU): metabolic formation and identification as a metabolite of aspirin in man. Clin. Pharmacol. Ther. 23: 634-643, 1978.

8. Taber, D. F., and Korsmeyer, R.: A simple stereoselective synthesis of (±)-oplopanone. J. Org. Chem. 43: 4925-4927, 1978.

9. Jernigan, J.; Taber, D.; Harbison, R. D. General method for the in vitro production and identification of N-dealkylated metabolites. Tox. App. Pharm. 48: A164-A164, 1979.

10. Taber, D. F., and Gunn, B. P.: Branching strategy in organic synthesis. A versatile ketone to enone homologation. J. Org. Chem. 44: 450, 1979.

11. Taber, D. F.; Jernigan, J. D.; Watson, J. T.; Carr, K.; and Woosley R. L.: N-Desethylacecainide is a metabolite of procainamide in man: convenient method for the preparation of an N-dealkylated drug metabolite. Drug Metabol. Disp. 7: 346, 1979.

12. Taber, D. F. and Gunn, B. P.: Control elements in the intramolecular Diels-Alder Reaction: synthesis of (±)-torreyol. J. Amer. Chem. Soc. 101: 3992, 1979.

13. Stork, G.; Boeckmann, R. K., Jr.; Taber, D. F.; Still, W. C. and Singh, J.: Reductive cyclization of ethynyl ketones in the construction of a significant tricyclic intermediate for the synthesis of gibberellic acid. J. Amer. Chem. Soc. 101: 7107, 1979.

14. Oates, J. A.; Roberts, L. J., II; Sweetman, B. M.; Maas, R. L.; Gerkens, J. F.; and Taber, D.F.: Metabolism of the prostaglandins and thromboxanes, in: Advances in Prostaglandinand Thromboxane Research, Vol. 6 (B. Samuelsson, P. E. Ramwell and R. Paoletti, Eds.)Raven Press, NY, 1980, p. 35.

15. Verbeeck, R. K.; James, R. C.; Taber, D. F.; Sweetman, B. J.; and Wilkinson, G. R.: The determination of meperidine, normeperidine and deuterated analogs in blood and plasma by gas chromatography mass spectrometry selected ion monitoring. Biomedical Mass Spectrometry 7: 58, 1980.

16. Taber, D. F., and Anthony, J. M.: Stereoselective synthesis of (±)-laurene. Tetrahedron Lett.: 2779, 1980.

17. Taber, D. F., and Saleh, S. A.: Intramolecular Diels-Alder route to angularly substituted perhydrophenanthrenes: synthesis of (±) fichtelite. J. Am. Chem. Soc. 102: 5085, 1980.

18. Taber, D. F.; Saleh, S. A.; and Korsmeyer, R. W.: Preparation of cyclohexanones and cyclopentanones of high optical purity. J. Org. Chem. 45: 4699, 1980.

19. Maas, R.L.; Roberts, L.J.; Taber, D.F.; Oates, J.A. Urinary dinor thromboxane $B_2$ levels in normal males and cardiovascular disease. Clinical Res. 28: A319-A319, 1980.

20. Taber, D. F.; Phillips, M. A.; and Hubbard, W. C.: Preparation of deuterated arachidonic acid. Prostaglandins, 22: 349, 1981.

21. Taber, D. F.; Campbell, C.; Gunn, B. P.; Chiu, I.-C.: The intramolecular Diels-Alder reaction: stereocontrol through non-synchronous bond formation? Tetrahedron Lett. 22: 5141, 1981.

22. Taber, D. F., and Saleh, S. A.: Branching strategy in organic synthesis. II: Reversal of olefin polarization with concomitant carbon-carbon bond formation. J. Org. Chem. 46:4817, 1981.

23. Hubbard, W. C.; Phillips, M. A.; and Taber, D. F.: Selective synthesis of octadeuterated (±)-5-HETE for use in GC-MS quantitation of 5-HETE. Prostaglandins 23: 61, 1982.

24. Taber, D. F.; Phillips, M. A.; and Hubbard, W. C.: Preparation of deuterated

arachidonic acid. Methods in Enzymology, Eds. W. E. Lands and W. L. Smith, New York, NY,Academic Press, 1982. V. 86, p. 366.

25. Maas, R. L; Taber, D. F.: and Roberts, L. J., II. Quantitative assay of urinary 2,3-dinorthromboxane $B_2$ by GC-MS. Methods in Enzymology, Eds. W. E. Lands and W. L. Smith, New York, NY, Academic Press, 1982. V. 86, p. 592.

26. Taber, D. F.: TLC mesh column chromatography. J. Org. Chem. 47: 1351, 1982.

27. Taber, D. F., and Saleh, S. A.: Control elements in the intramolecular Diels-Alder reactions: synthesis of α-eudesmol. Tetrahedron Lett. 23: 2361, 1982.

28. Maas, R.L.; Ingram, C. D.; Taber, D. F.; Oates, J. A.; and Brash, A. R.: Stereospecific removal of the D(R) hydrogen atom at the 10-carbon of arachidonic acid in the biosynthesis of leukotriene $A_4$ by human leukocytes. J.Biol. Chem. 257: 13525, 1982.

29. Taber, D. F., and Petty, E. H.: A general route to highly functionalized cyclopentane derivatives by intramolecular C-H insertion. J. Org. Chem. 47: 4808, 1982.

30. Taber, D. F.; Gunn, B. P.; and Chiu, I.-C.: Preparation of 2-heptyl cyclohexenone. Org.Syn. 61: 59, 1983. Coll. Vol. VII, p. 249 (1990).

31. Hubbard, W. C., and Taber, D. F.: Analysis of hydroxy acids, Proceedings of the NinthInternational School of Pharmacology: Prostacyclins and Leukotrienes, Plenum, 1983.

32. Taber, D. F., and Raman, K.: Enantioselective carbocyclization: a facile route to chiral cyclopentanes. J. Am. Chem. Soc., 105: 5935, 1983.

33. Taber, D. F.; Krewson, K. R.; Raman, K.; and Rheingold, A. L.: On the stereochemical course of cuprate-mediated addition to an activated cyclopropane. Tetrahedron Lett. 25: 5283, 1984.

34. Taber, D. F.; Petty, E. H.; and Raman, K.: Enantioselective ring construction: synthesis of (+)-α-cuparenone. J. Am. Chem. Soc., 107: 196, 1985.

35. Maas, R. L.; Ingram, C. D.; Porter, A. T.; Oates, J. A.; Taber, D. F.; and Brash, A. R.: Investigation of the chemical conversion of hydroperoxyeicosatetraenoate to leukotriene epoxide using stereospecifically labelled arachidonic acid. J. Biol. Chem. 260: 4217, 1985.

36. Taber, D. F.; Dunn, B. S.; Mack, J. F.; and Saleh, S. A.: Ortho allylation of benzylalcohols. J. Org. Chem. 50: 1987, 1985.

37. Taber, D. F., and Ruckle, R. E., Jr.: Diastereoselection in rhodium-mediated intramolecular C-H insertion: preparation of a trans-3,4-dialkylcyclopentane. Tetrahedron Lett. 26: 3059,1985.

38. Taber, D. F., and Schuchardt, J. S.: Intramolecular C-H insertion: synthesis of (±)-pentalenolactone E methyl ester. J. Am. Chem. Soc., 107: 5289, 1985.

39. Taber, D. F.; Amedio, J. C., Jr.; and Patel, Y. K.: Preparation of ß-ketoesters by 4-DMAP catalyzed ester exchange. J. Org. Chem. 50: 3618, 1985.

40. Taber, D. F.; Amedio, J. C., Jr.; and Sherrill, R. G.: Pd-mediated diazo insertions: preparation of 3-alkyl 2-carbomethoxy cyclopentenones. J. Org. Chem. 51: 3382, 1986.

41. Taber, D. F.; Ruckle, Robert E., Jr.; Hennessy, Michael J.: Mesyl azide, a superior reagent for diazo transfer. J. Org. Chem. 51: 4077-4078, 1986.

42. Taber, D. F., and Ruckle, Robert E., Jr.: Cyclopentane construction by $Rh_2(OAc)_4$-mediated intramolecular C-H insertion: steric and electronic effects. J. Am. Chem. Soc. 108: 7686-7693, 1986.

43. Taber, D. F., Raman, K.and Gaul, M.D.: Enantioselective ring construction: synthesis of (+)-estrone methyl ether. J. Org. Chem. 52: 28, 1987.

44. Taber, D. F. and Schuchardt, J. S.: Symmetry in retrosynthetic analysis: synthesis of pentalenolactone E methyl ester. Tetrahedron 43: 5677, 1987.

45. Prakash, C.; Roberts, L. J. II; Saleh, S. A.; Taber, D. F.; and Blair, I. A. Synthesis of Putative Prostaglandin $D_2$ Metabolites. Advances in Prostaglandin, Thromboxane andLeukotriene Research, Samuelsson, B., Paoletti, R., and Ramswell, P. W., Eds., Raven Press,NY, 1987, V. 17, p. 781.

46. Taber, D. F.; Deker, P. B.; and Gaul, M. D.: Enantioselective construction of dialkylcarbinols: synthesis of (-)-hexadecanolide. J. Am. Chem. Soc. 109, 7488, 1987.

47. Taber, D. F.; Amedio, J. C., Jr.; and Jung, K.-Y.: $P_2O_5$/DMSO/Triethylamine (PDT): a convenient procedure for oxidation of alcohols to ketones and aldehydes. J. Org. Chem. 52: 5621, 1987.

48. Taber, D.F.; Deker, P.B.; Fales, H.M.; Jones, T.H.; and Lloyd, H.A.:Enantioselective construction of heterocycles: synthesis of (R,R)-solenopsin B. J. Org. Chem. 53: 2968, 1988.

49. Taber, D. F.; Amedio, J.C., Jr.; Raman, K. Enantioselective ring construction with controlof side-chain stereochemistry: synthesis of (+)-isoneonepetalactone. J.Org.

Chem. 53:2984-2990, 1988.

50. Prakash, P.; Saleh, S.; Roberts, L.J. III; Blair, I.A.; Taber, D.F. Synthesis of the major urinary metabolite of prostaglandin $D_2$. J. Chem. Soc. Perkin Trans. I, 1988, 2821.

51. RajanBabu, T. V.; Nugent, W.A.; Taber, D. F.; Fagan, P. J. Stereoselective cyclization of enynes mediated by metallocene reagents. J. Am. Chem. Soc. 110: 7128, 1988.

52. Prakash, C.; Saleh, S.; Sweetman, B. J.; Taber, D. F.; Blair, I. A. A synthon for C-20 trideuterated eicosanoids: Preparation of [$^2H_3$]-arachidonic acid. J. Labelled Cmpds. and Radiopharm. XXVII: 539, 1989

53. Taber, D. F.; Amedio, J. C.; Jr.; Gulino, F. Selective decarbalkoxylation of ß-keto esters. J. Org. Chem. 54: 3474, 1989.

54. Taber, D. F. Mack, J. F., Rheingold, A. L. and Geib, S. J. Enantioselective Robinson annulation: synthesis of (+)-O-methyljoubertiamine. J. Org. Chem. 54: 3831, 1989.

55. Nugent, W. A. and Taber, D. F. Zirconium-mediated ring construction from dienes: remarkable effect of ligands on stereochemistry. J. Am. Chem. Soc. 111: 6435, 1989.

56. Prakash, C.; Saleh, S.; Taber, D. F.; Blair, I. A. Synthesis of trideuterated o-alkyl platelet activating factor and lyso derivatives. Lipids 24: 786, 1989.

57. Prakash, C.; Saleh, S.; Taber, D.F.; Blair, I.A. A practical route for the synthesis of prostaglandin $D_2$ metabolites. Syn. Comm. 19: 245, 1989.

58. Nugent, W.A.; RajanBabu, T.V.; Taber, D.F. "One-Electron" vs. "Two-Electron "cyclizations mediated by titanium and zirconium reagents Chemica Scripta 29: 439 (1989).

59. Prakash, C.; Saleh, S.; Taber, D. F.; Wilkinson, Grant R.; Blair, I. A. Deuterium labellingof the antidepressant drug doxepin for disposition studies in human subjects. J. LabelledCmpds. and Radiopharm. XXVIII: 1037, 1990

60. Taber, D.F.; Hoerrner, R.S. Column Chromatography: Isolation of Caffeine J. Chem. Educ. 68: 73-73. (1991).

61. Taber, D.F.; Hoerrner, R.S.; Hagen, M.D. A practical preparation of the indolizidine nucleus: Synthesis of (±)-elaeokanine A. J. Org. Chem. 56: 1287, 1991.

62. Taber, D.F.; Silverberg, L.J. Enantioselective reduction of ß-keto esters. Tetrahedron Letters 32: 4227, 1991.

63. Taber, D.F.; Silverberg, L.J.; Robinson, E.D. Cyclopentane construction with control of side-chain configuration: Synthesis of (+)-brefeldin A. J. Am. Chem. Soc. 113: 6639, 1991.

64. Taber, D.F.; Hennessy, M.J.; Louey, J.P. Rh-mediated cyclopentane construction can compete with ß-hydride elimination: Synthesis of (±)-tochuinyl acetate. J. Org. Chem. 57:436, 1992.

65. Taber, D.F.; Hoerrner, R.S. Enantioselective Rh-mediated synthesis of (-)-$PGE_2$ methyl ester. J. Org. Chem. 57: 441, 1992.

66. Taber, D.F.; Stachel, S.J. On the mechanism of the Wolff-Kishner reduction. Tetrahedron Lett. 33: 903, 1992.

67. Taber, D.F.; Rahimizadeh, M. Amide to ester conversion: A practical route to the carfentanil class of analgetics. J. Org. Chem. 57: 4037, 1992.

68. Taber, D.F.; Deker, P.B.; Silverberg, L.J. Enantioselective Ru-mediated synthesis of (-)- indolizidine 223AB. J. Org. Chem. 57: 5990, 1992.

69. Taber, D.F.; Meagley, R.P. Synthesis of 2-chloroethyl ($^{13}C$)- methyl sulfide. J. Labelled Cmpds. and Radiopharm. 31: 849, 1992.

70. Taber, D.F. On the attempted synthesis of 3ß-hydroxy-7ß-kemp-8(9)-en-6-one.Tetrahedron Letters 34: 1833, 1993.

71. Taber, D.F.; Louey, J.P.; Lim, J.A. On the reversibility of alkene cyclozirconation.Tetrahedron Letters 34: 2243, 1993.

72. Taber, D.F.; Wang, Y.; Stachel, S.J. Alkyl radical generation by reduction of a ketonetosylhydrazone. Tetrahedron Letters 34: 6209, 1993.

73. Taber, D.F.; Wang, Y. Preparation of 2-chloroethyl-1,1-$d_2$ phenyl sulfide without appreciable scrambling. J. Org. Chem. 58: 6470, 1993.

74. Taber, D.F.; Bhamidipati, R.S.; Thomas, M.L. Cascade cyclization: Synthesis of (+)- tuberine. J. Org. Chem. 59: 3442, 1994.

75. Taber, D.F.; You, K. Synthesis of ethyl w-$^{2}H_5$-docosa-4,7,10,13,16,19-hexaenoate. J.Labelled Cmpds. and Radiopharm. 34: 747, 1994.

76. Taber, D.F.; Houze, J.B. The 2-hydroxycitronellols, convenient chirons for natural products synthesis. J. Org. Chem. 59: 4004-4006, 1994.

77. Taber, D.F.; Walter, R.; Meagley, R.P. Intramolecular C-H insertion by an alkylidenecarbene: diastereoselective synthesis of a taxol A ring synthon. J. Org. Chem. 59: 6014-6017,1994.

78. Taber, D.F.; Louey, J.P.; Wang, Y.; Nugent, W.A.; Dixon, D.A.; Harlow, R.L.Stereoselectivity in intramolecular diene cyclozirconation: A combined experimental and theoretical approach. J. Am. Chem. Soc. 116: 9457, 1994.

79. Taber, D.F.; Meagley, R.P. Diastereoselectivity in uncatalyzed intramolecular C-H insertion by an alkylidene carbene. Tetrahedron Lett. 35: 7909, 1994.

80. Taber, D.F.; Rahimizadeh, M. Hexasubstituted benzenes by alkyne cyclotrimerization.Tetrahedron Lett. 35: 9139, 1994.

81. Taber, D.F.; You, K. New synthon for the convergent construction of skipped conjugation polyenes: Synthesis of Ethyl Docosa-4,7, 10, 13, 16, 19-hexaenoate. J. Org. Chem. 60: 139, 1995.

82. Taber, D.F.; Yet, L.; Bhamidipati, R.S. Conversion of phenyldimethylsilyl to the hydroxyl in the presence of a carbon-carbon double bond. Tetrahedron Lett. 36: 351, 1995.

83. Taber, D.F.; Rahimizadeh, M.; You, K.K. Enantioselective synthesis of the Dendrobatid alkaloid (-)-Indolizidine 207A. J. Org. Chem. 60: 529 (1995).

84. Taber, D.F.; You, K.; Song, Y. A simple preparation of α-diazo esters. J. Org. Chem. 60: 1093 (1995).

85. Taber, D.F.; Song, Y. 2,3,5-Trisubstituted tetrahydrofurans by Rh-mediated cyclization of an α-diazo ester. Tetrahedron Lett. 36: 2587 (1995).

86. Taber, D.F.; Gleave, D.M.; Herr, R.J.; Moody, K.; Hennessy, M.J. A new method for the construction of α-diazoketones J. Org. Chem. 60: 2283 (1995).

87. Taber, D.F.; Louey, J. P. 1,2-Induction in intramolecular diene cyclozirconation: Control of relative configuration. Tetrahedron 51: 4495 (1995).

88. Taber, D.F.; You, K. Highly diastereoselective cyclopentane construction: Enantioselective synthesis of the dendrobatid alkaloid 251F J. Am. Chem. Soc. 117: 5757 – 5762 (1995).

89. Taber, D.F.; Wang, Y. Synthesis of (1,2-$^{13}$C)-2-chloroethyl phenyl sulfide. J. Labelled Cmpds. and Radiopharm. XXXVI: 655 (1995).

90. Taber, D.F.; Bhamidipati, R.S.; Yet, L. Phenyldimethylsilyl as an alcohol surrogate in intramolecular Diels-Alder cycloaddition: Synthesis of α-dictyopterol. J. Org. Chem. 60: 5537 (1995).

91. Taber, D.F.; Wang, Y. Kinetic vs. thermodynamic control in intramolecular dienecyclozirconation: Synthesis of elemol. Tetrahedron Lett. 36: 6639 (1995).

92. Taber, D.F.; Meagley, R.P.; Louey, J.P.; Rheingold, A.L. Molecular complex design: Bridging the tetrakiscarboxylatodirhodium core. Inorg. Chim. Acta. 239: 25 (1995).

93. Taber, D.F.; Sahli, A.; Yu, H.; Meagley, R.P. Efficient intramolecular C-H insertion by an alkylidene carbene generated from a vinyl chloride. J. Org. Chem. 60: 6571 (1995).

94. Taber, D.F.; You, K.K.; Rheingold, A.L. Predicting the diastereoselectivity of Rh-mediated intramolecular C-H insertion. J. Am. Chem. Soc. 118: 547 (1996).

95. Yeola, S. N.; Saleh, S.A.; Brash, A.R.; Prakash, C.; Taber, D.F.; Blair, I.A. Synthesis of10(S)-hydroxyeicosatetraenoic acid: A novel cytochrome P-450 metabolite of arachidonic acid. J. Org. Chem. 61: 838 (1996).

96. Taber, D.F.; Christos, T.E.; Hodge, C.N. Cyclohexenone annelation by alkylidene C-H insertion: Synthesis of oxo-T-cadinol. J. Org. Chem. 61: 2081 (1996).

97. Taber, D.F.; Meagley, R.P.; Supplee, D. A colorful Grignard reaction: Preparation of the triarylmethane dyes from 4-bromo N,N-dimethylaniline. J. Chem. Educ. 73: 259 (1996).

98. Taber, D.F.; Herr, R.J.; Pack, S.K.; Geremia, J.M. A convenient method for the preparation of (Z)- α, β -unsaturated carbonyl compounds. J. Org. Chem. 61: 2908 (1996).

99. Taber, D.F.; Meagley, R.P.; Doren, D.J. Cyclohexenone construction by intramolecular alkylidene C-H insertion: Synthesis of (+)-cassiol. J. Org. Chem. 61: 5723 (1996).

100. Taber, D.F.; Song, Y. Diastereoselective Rh-mediated construction of 2,3,5-trisubstituted tetrahydrofurans. J. Org. Chem. 61: 6706 (1996).

101. Taber, D.F.; Song, Y. Stereocontrolled assembly of cis or trans angularly substituted hydrindenes by the unactivated intramolecular Diels-Alder reaction. J. Org. Chem. 61: 7508 (1996).

102. Taber, D.F.; Wang, Y., Liehr, S. Mini-scale oxidation/reduction in the organic

laboratory course: 4-nitrobenzaldehyde / 4-nitrobenzyl alcohol. J. Chem. Educ. 73: 1042 (1996).

103. Taber, D.F.; Wang, Y. Synthesis of (-)-haliclonadiamine. J. Am. Chem. Soc. 119: 22 (1997).

104. Taber, D.F.; Herr, R.J.; Gleave, D.M. Diastereoselective synthesis of an isoprostane: (±)-8-epi-$PGE_2$ ethyl ester. J. Org. Chem. 62: 194 (1997).

105. Taber, D.F.; Yu, H. Synthesis of α-necrodol: Unexpected formation of a cyclopropene J. Org. Chem. 62: 1687 (1997).

106. Taber, D.F.; Morrow, J.D.; Roberts, L.J.II A nomenclature system for the isoprostanes. Prostaglandins. 53: 63 (1997).

107. Taber, D.F.; Christos, T.E. Improved chemoselectivity in intramolecular alkylidene carbene insertion. Tetrahedron Lett. 38: 4927 (1997).

108. Taber, D.F.; Gorski, G.J.; Liable-Sands, L.M.; Rheingold, A.L. (R,R)-2, 5-Diphenylpyrrolidine: Diastereoselective radical addition to the derived methacrylamide.Tetrahedron Lett. 38: 6317 (1997).

109. Taber, D.F.; Song, Y. Specific C-C bond construction by remote C-H activation: Synthesis of (-)-trans-cembranolide. J. Org. Chem. 62: 6603 (1997).

110. Taber, D.F.; Kong, S. Alkylation of acetonitrile. J. Org. Chem. 62: 8575 (1997).

111. Taber, D.F.; Green, J.H.; Geremia, J.M. Carbon-carbon bond formation with allylmagnesium chloride. J. Org. Chem. 62: 9342 (1997).

112. Taber, D.F.; Weiss, Andrew J. Cinnamaldehyde by steam distillation of cinnamon. J. Chem. Educ. 75: 633 (1998).

113. Taber, D.F.; Malcolm, S. C. Rhodium-mediated intramolecular C-H insertion: Probing the geometry of the transition state. J. Org. Chem. 63: 3717 (1998).

114. Taber, D.F.; Stiriba, S.-E. Synthesis of natural products by rhodium-mediated intramolecular C-H insertion. Chem. Eur. J. 4: 990 (1998).

115. Taber, D.F.; Kanai, K. Synthesis of the four enantiomerically-pure isomers of 15-$F_{2t}$isoprostane. Tetrahedron 54: 11767 (1998).

116. Taber, D.F.; Yu, H.; Szafraniec, L.L. Unexpected Double $^{18}O$ Labeling of a Phosphonothioate. J. Org. Chem. 63: 5711 (1998).

117. Taber, D.F.; Kanai, K. A synthetic approach to 15-$D_{2c}$-isoprostane ethyl ester J. Org.Chem. 63: 6607 (1998).

118. Taber, D.F.; Kong, S.; Malcolm, S.C. Internal Diels-Alder cycloaddition with a Z-dienophile: Synthesis of (±)-a-oplopenone J. Org. Chem. 63:7953 (1998).

119. Taber, D.F.; Yu, H.; Incarvito, C.D.; Rheingold, A.L. Synthesis of (-)-isonitrin B. J. Am. Chem. Soc. 120: 13285 (1998).

120. Taber, D.F.; Malcolm, S.C.; Bieger, K.; Lahuerta, P.; Sanau, M.; Stiriba, S.-E.; Perez- Prieto,J.; Angeles-Monge, M. Synthesis, structure, and reactivity of the first enantiomerically pure ortho-metalated rhodium(II) dimer. J. Am. Chem. Soc. 121: 860 (1999).

121. Taber, D.F.; Nelson, J.D.; Northrop, J.P. Preparation and identification of benzoic acids and benzamides: An organic "unknown" lab. J. Chem. Educ. 76: 828 (1999).

122. Taber, D.F.; Christos, T.E.; Guzei, I.A.; Rheingold, A.L. Synthesis of (-)-fumagillin. J. Am. Chem. Soc. 121:5589 (1999).

123. Morrow, J.D.; Zackert, W.E.; Yang, J.P.; Kurhts, E.H.; Callewaert, D.; Dworski, R.; Kanai,K.; Taber, D.; Moore, K.; Oates, J.A.; Roberts, L.J. Quantification of the major urinary metabolite of 15-$F_{2t}$-isoprostane (8-iso-$PGF2_{\alpha}$) by a stable isotope dilution mass spectrometric assay. Analytical Biochem. 269: 326 (1999).

124. Taber, D.F.; Balijepalli, B.; Liu, K.-K.; Kong, S.; Rheingold, A.L.; Askham, F.R. Designing the chiral space around an early transition metal: Myrtanyl zirconocene J. Org. Chem. 64:4525 (1999).

125. Taber, D.F.; Kanai, K.; Pina, R. 5-$F_{2t}$-Isoprostane, a human hormone? J.Am. Chem. Soc. 121:7773 (1999).

126. Taber, D.F.; Kanai, K. Synthesis of 2,3-dinor-5,6-dihydro-15$F_{2t}$-isoprostane J. Org. Chem. 64:7983 (1999).

127. Taber, D.F.; Christos, T.E.; Neubert, T.D.; Batra, D. Cyclization of 1,1-disubstituted alkenes to cyclopentenes J. Org. Chem. 64:9673 (1999).

128. Sasaki, D.; Yuan, Y.; Gikas, K.; Taber, D.; Morrow, J.; Roberts, J.; Callewaert, D. An immunometric ELISA for 15-$F_{2t}$ isoprostane, a urinary biomarker for oxidative stress. Free Radical Biology & Med. 27: 543-543 (2000).

129. Taber, D.F.; Sethuraman, M. R. Unsymmetrical diaryl ketones from arenes J. Org. Chem. 65:254 (2000).

130. Taber, D.F.; Zhang, W.; Campbell, C.L.; Rheingold, A.R.; Incarvito, C.D. Cyclozirconation of a computationally-designed diene: Synthesis of (-)-androst-4-ene-3,16-dione J. Am. Chem. Soc. 122:4813 (2000).

131. Taber, D.F.; Wang, Y.; Pahutski, T.F., Jr. Diastereoselective cyclopentane construction J. Org. Chem. 65:3861 (2000).

132. Taber, D.F.; Kanai, K.; Jiang, Q.; Bui, Q. Enantiomerically pure cyclohexenones by Fe-mediated carbonylation of alkenyl cyclopropanes J. Am. Chem. Soc. 122:6807 (2000).

133. Taber, D.F.; Yu, H. Drugs from Nature? Synthesis of the isonitrin antibiotics. Science Progress 83: 135 (2000).

134. Chenault, H. K.; Yang, J.; Taber, D.F. Total synthesis of α-deamino-3-(β-D-glucopyranosyloxy)kynurenine. Tetrahedron 56: 3673 (2000).

135. Taber, D.F.; Green, J.H.; Zhang, W.; Song, R. Preparation of a cis-isoprostane synthon. J. Org. Chem. 65: 5436 (2000).

136. Taber, D.F.; Campbell, C.L.; Louey, J.P.; Wang, Y.; Zhang, W. Predicting the diastereoselectivity of intramolecular diene cyclozirconation: Applications to natural product synthesis. Current Organic Chemistry 4: 809 (2000).

137. Taber, D.F.; Jiang, Q. Preparation of ent-prostaglandin $E_2$. Tetrahedron 56: 5991 (2000).

138. Lahuerta, P.; Perez-Prieto, J.; Sanua, M.; Stiriba, S.E.; Taber, D.F. Ortho-metalated dirhodium(II)-catalyzed alpha-diazocarbonyl transformation. Diastereoselective cyclopropanation of menthyl- α-diazo-β-keto ester and C-H insertion of a-diazo ester. J. Organomet. Chem. 612: 36 (2000).

139. Taber, D.F.; Neubert, T.D. Enantioselective construction of cyclic quaternary centers: (-)-Mesembrine J. Org. Chem. 66:143 (2001).

140. Taber, D.F.; Malcolm, S.C. Synthesis of (-)-astrogorgiadiol J. Org. Chem. 66:944-953(2001).

141. Taber, D.F.; Jiang, Q. Total synthesis of the four enantiomerically pure diastereomers of $8F_{2t}$-isoprostane. J. Org. Chem. 66:1876-1884 (2001).

142. Taber, D.F.; Nakajima, K. Unsymmetrical ozonolysis of a Diels-Alder adduct: Practical preparation of a key intermediate for heme total synthesis. J. Org. Chem. 66:2515-2517(2001).

143. Taber, D.F.; Bui, G.; Chen, B. Synthesis of (-)-delobanone. J. Org. Chem.

66:3423-3426(2001).

144. Hou, X.; Roberts, J.L.; Taber, D.F.; Morrow, J.D.; Kanai, K.; Gobeil, F.; Beauchamp, M.H.;Bernier, S.G.; Lepage, G.; Varma, D.R.; Chemtob, S. 2,3-Dinor-5,6-dihydro-15-$F_{2t}$ Isoprostane: a bioactive prostanoid metabolite. Am. J. Physiol. 281: R391-R400 (2001).

145. Taber, D.F.; Christos, T.E.; Rahimizadeh, M.; Chen, B. A convenient chiron for substituted cyclohexanones. J. Org. Chem. 66:5911-5914 (2001).

146. Taber, D.F.; Joshi, P.V. Free radical generation by reduction of ketone tosylhydrazones. C.R. Acad. Sci. Paris, Chimie 4: 557-560 (2001).

147. Taber, D.F.; Teng, D. Total synthesis of the ethyl ester of the major urinary metabolite of prostaglandin $E_2$. J. Org. Chem. 67:1607-1612 (2002).

148. Taber, D.F.; Mitten, J.V. Preparation and reactions of 2-chloro-3,4-epoxy-1-butene: A convenient route to (Z)-3-chloroallylic alcohols. J. Org. Chem. 67: 3847-3851 (2002).

149. Taber, D.F.; Nakajima, K.; Xu, M.; Rheingold, A.L. Lactone-directed intramolecular Diels-Alder cyclization: Synthesis of trans-dihydroconfertifolin. J. Org. Chem. 67: 4501-4504( 2002).

150. Taber, D.F.; Jiang, Q.; Chen, B.; Zhang, W.; Campbell, C.L. Synthesis of (-)-Calicoferol B.J. Org. Chem. 67: 4821-4827 (2002).

151. Taber, D.F.; Neubert, T.D.; Rheingold, A.L. Synthesis of (-)-Morphine. J. Am. Chem. Soc.124: 12416-17 (2002).

152. Taber, D.F.; Xu, M.; Hartnett, J.C. Synthesis of the eight enantiomerically-pure diastereomers of the 12-$F_2$-Isoprostanes. J. Am. Chem. Soc. 124: 13121-13126 (2002).

153. Taber, D.F.; Storck, P.H. Linchpin construction of unsymmetrical 1,4-alkynediols. J. Org.Chem. 67: 8273-8275 (2002).

154. Sasaki, D. M.;Yuan, Y.; Gikas, K.; Kanai, K.; Taber, D.; Morrow, J. D.; Roberts, L. J.; Callewaert, D. M. Enzyme immunoassays for 15-$F_{2t}$ isoprostane-M, a urinary biomarker for oxidant stress. Adv. Exp. Med. Biol. 507: 537-541 (2002).

155. Taber, D.F.; Frankowski, K.J. Grubbs' catalyst in paraffin: An air-stable preparation for alkene metathesis. J. Org. Chem. 68: 6047-6048 (2003).

156. Taber, D.F.; Storck, Pierre H. Synthesis of (-)-tetrodotoxin: Preparation of an advanced cyclohexenone intermediate J. Org. Chem. 68: 7768-7771 (2003).

157. Taber, D.F.; Hoerrner, R.S.; Herr, R.J.; Gleave, D.M.; Kanai, K.; Pina, R.; Jiang, Q.; Xu,M. The diazo ketone approach to the isoprostanes. Chemistry and Physics of Lipids 128:57-67 (2004).

158. Hou, X.; Roberts, L.J. II; Gobeil, F. Jr.; Taber, D.F.; Kanai, K.; Abran, D.; Brault, S.;Checchin, D.; Sennlaub, F.; Lachapelle, P.; Varma, D.R.; Chemtob, S. Isomer-specific contractile effects of a series of synthetic $F_2$-isoprostanes on retinal and cerebral microvaculature. Free Radical Biology & Med. 36: 163-172 (2004).

159. Taber, D. F; Fessel, J. P.; Roberts, L J. 2nd A nomenclature system for isofurans. Prostaglandins & Other Lipid Mediators 73: 47-50 (2004).

160. Taber, D. F; Joshi, P. V; Kanai, K. 2,5-Dialkyl cyclohexenones by $Fe(CO)_5$-mediated carbonylation of alkenyl cyclopropanes: functional group compatibility. J. Org. Chem. 69: 2268-71 (2004).

161. Taber, D. F; Joshi P. V. Cyclopentane construction by Rh-catalyzed intramolecular C-H insertion: relative reactivity of a range of catalysts. J. Org. Chem. 69: 4276-8 (2004).

162. Taber, D. F; Pan, Y.,; Zhao, X. A flexible enantioselective synthesis of the isofurans. J. Org.Chem. 69: 7234-7240 (2004).

163. Taber, D.F.; He, Y.; Xu, M. Enantioselective construction of carbobicyclic scaffolds J. Am. Chem. Soc. 126: 13900-13901 (2004).

164. Taber, D. F.; Sheth, R.; Joshi, P.V. Simple preparation of $\alpha$-diazo esters. J. Org. Chem. 70: 2851-2854 (2005).

165. Taber, D. F. and Cai, L. Preparation of ketones from nitriles and phosphoranes. J. Org. Chem. 70: 4887-4888 (2005).

166. Taber, D. F. and Frankowski, K.J. Synthesis of (+)-Sulcatine G. J. Org. Chem. 70:6417-6421 (2005).

167. Taber, D. F. and Plepys, R. A. Effect of solvent polarity on N-H insertion vs. rearrangement of alkylidene carbenes. Tetrahedron Lett. 46: 6045-6047 (2005).

168. Taber, D. F. and He, Yigang Opening of aryl-substituted epoxides to form quaternary stereogenic centers: Synthesis of (-)-Mesembrine J. Org. Chem. 70: 7711-7714 (2005).

169. Taber, D. F. and Zhang, Zhe A linchpin approach to unsaturated fatty acids: 11,12-epoxyeicosatrienoic acid and 11S,12S-dihydroxyeicosatrienoic acid ethyl esters J. Org. Chem. 70: 8093-8095 (2005).

170. Taber, D. F.; Liang, J.; Chen, B.; Cai, L.. A model study toward the total synthesis of N-deacetyllappaconitine. J. Org. Chem. 70: 8739-8742 (2005).

171. Taber, D. F.; Roberts, L. J. II Nomenclature systems for the neuroprostanes and for the neurofurans. Prostaglandins &Other Lipid Mediators, 78: 14-18 (2005).

172. Taber, D. F. Quantifying Publication Impact Science 309: 2166 (2005).

173. Taber, D. F. and Frankowski, K.J. Grubbs's cross metathesis of eugenol with cis-2-butene1,4-diol to make a natural product. An organometallic experiment for the undergraduate lab J. Chem. Educ. 83: 283 (2006).

174. Taber, D. F. and Zhang, Zhe Synthesis of the enediol isofurans, endogenous oxidation products of arachidonic acid J. Org. Chem. 71: 926 (2006).

175. Taber, D.F.; Tian, W. The Neber route to substituted indoles. J. Am. Chem. Soc 128: 1058-1059 (2006).

176. Taber, D.F.; Gerstenhaber, D. A.; Zhao, X. Convenient preparation of tert-butyl esters. Tetrahedron Lett. 47: 3065 (2006).

177. Taber, D.F. ; Taluskie, K. V. Computationally guided organometallic chemistry: Preparation of the heptacyclic pyrazine core of Ritterazine N J. Org. Chem. 71: 2797 - 2801(2006).

178. Taber, D. F.; Nelson, C. G. Potassium hydride in paraffin: A useful base for organic synthesis. J. Org. Chem. 71: 8973-8974 (2006).

179. Taber, D.; Snieckus, V. Laudation for Professor Richard Heck. Synlett v. 18 (2006).

180. Taber, D. F.; Liang, J. Single enantiomer epoxides by bromomandelation of prochiral alkenes. J. Org. Chem. 72: 431-434 (2007).

181. Taber, D. F.; DeMatteo, P. W.; Taluskie, K. V. Synthesis of symmetrical and unsymmetrical pyrazines. J. Org. Chem. 72: 1492-1494 (2007).

182. Taber, D. F.; Tian, W. Rhodium-catalyzed intramolecular C-H insertion of $\alpha$-aryl-$\alpha$-diazo ketones. J. Org. Chem. 72: 3207-3210 (2007).

183. Taber, D. F.; Joerger, J.-M. Preparation of the 5/5-spiroketal of the ritterazines. J. Org. Chem. 72: 3454-3457 (2007).

184. Taber, D. F.; Sikkander, M.I.; Storck, P.H. Enantioselective synthesis of (+)-Majusculone J. Org. Chem. 72: 4098-4101 (2007).

185. Taber, D.F.; Patel, S.; Hambleton, T. M.; Winkel, E. E. Vanillin synthesis from 4-hydroxybenzaldehyde. J. Chem. Educ. 84: 1158 (2007).

186. Taber, D. F.; Sikkander, M. I.; Berry, J. F.; Frankowski, K. J. Preparation of 2-iodo allylic alcohols from 2-butyn-1,4-diol J. Org. Chem. 73: 1605-1607 (2008).

187. Taber, D.F.; Reddy, G. P.; Arneson, K. O. A potential route to neuroprostanes and isoprostanes: Preparation of the four enantiomerically-pure diastereomers of 13-$F_{4t}$-NeuroP J. Org. Chem. 73: 3467-3474 (2008).

188. Taber, D. F.; Joerger, J.-M.; Taluskie, K. V. Toward the total synthesis of Ritterazine N. Pure App. Chem. 80: 1141 (2008).

189. Taber, D. F.; Joerger, J.-M. Synthesis of bis-18,18 '-desmethyl ritterazine N J. Org. Chem. 73: 4155-4159 (2008).

190. Taber, D. F.; Tian, W. Synthesis of (-)-Hamigeran B J. Org. Chem. 73: 7560-7564 (2008).

191. Taber, D. F.; Sheth, R. B. A three-step route to a tricyclic steroid precursor J. Org. Chem. 73: 8030-8032 (2008).

192. Taber, D. F.; Bai, S.; Guo, P. A convenient reagent for aldehyde to alkyne homologation Tetrahedron Lett. 49: 6904-6906 (2008).

193. Taber, D. F.; Berry, J. F.; Martin, T. J. Convenient synthetic route to an enantiomerically pure FMOC α-amino acid J. Org. Chem. 73: 9334-9339 (2008).

194. Taber, D. F.; Guo, P. Convenient access to bicyclic and tricyclic triazenes J. Org. Chem. 73: 9479-9481 (2008).

195. Taber, D. F.; Sheth, R. B.; Tian, W. Synthesis of (+)-Coronafacic Acid J. Org. Chem. 74: 2433-2437 (2009).

196. Taber, D. F.; Paquette, C. M.; Reddy, P. G. One carbon homologation of halides to benzyl ethers. Tetrahedron Lett. 50: 2462-2463 (2009).

197. Taber, D. F.; Gu, P. Preparation of the major urinary metabolite of (-)-prostaglandin $E_2$. Tetrahedron 65: 5904-5907 (2009).

198. Taber, D. F.; Gu, P.; Li, R. A divergent synthesis of the $\Delta^{13}$ 9-Isofurans J. Org. Chem. 74: 5516-5522 (2009).

199. Huang, H.; Nelson, C. G.; Taber, D. F. Potassium hydride in paraffin: a useful base for Williamson ether synthesis. Tetrahedron Lett. 51: 3545-3546 (2010).

200. Taber, D. F.; Guo, P.; Pirnot, M. T. Conjugate addition of lithiated methyl pyridines to enones. J. Org. Chem. 75: 5737-5739 (2010).

201. Taber, D. F.; Guo, P.; Guo, N. Intramolecular [1+4+1] cycloaddition: Establishment of the method. J. Am. Chem. Soc 132: 11179-11182 (2010).

202. Taber, D. F.; Straney, P. J. The Synthesis of laurolactam from cyclododecanone via a Beckmann rearrangement. J. Chem. Educ. 87: 1392 (2010).

203. Taber, D. F.; Nelson, C. G. Aliphatic C-H to C-C conversion: Synthesis of (-)-Cameroonan-7a-ol. J. Org. Chem. 76: 1874 (2011).

204. Taber, D. F.; Tirunahari, P. K. Indole synthesis: a review and proposed classification. Tetrahedron 67:7195 (2011).

205. Taber, D. F.; Gerstenhaber, D. A.; Berry, James F. Enantioselective conjugate allylation of cyclic enones. J. Org. Chem. 76: 7614-7617 (2011).

206. Taber, D. F.; Lui, R.; Anson, C. M. Isolation of cholesterol from egg yolk. J. Chem. Educ. 88: 1580 (2011).

207. Taber, D. F.; Raciti, D. M. Synthesis of Astrogorgiadiol. Tetrahedron 67: 10229 (2011).

208. Taber, D. F.; Bai, S.; Tian, W. Synthesis of the reported structure of trans-Africanan-1$\alpha$-ol. J. Org. Chem. 76: 9733 (2011).

209. Tian, F.; Taber, D. F., Teplyakov, A. V. –NH- Termination of the Si(111) surface by wet chemistry. J. Am. Chem. Soc. 133: 20769-20777 (2011).

210. Taber, D. F.; DeMatteo, P. W. A Piperidine chiron for the *Veratrum* alkaloids J. Org. Chem. 77: 4235 (2012).

211. Taber, D. F.; Paquette, C.M. Photochemistry is back in the undergraduate organic chemistry laboratory *J. Chem. Educ.* **2013**, *90*, 1105-1106.

212. Taber, D. F.; Qui, J. Permaleic Acid: Baeyer-Villiger oxidation of cyclododecanone *J. Chem. Educ.* **2013**, *90*, 1103-1104.

213. Taber, D. F.; Berry, J. F. Construction of the tricyclic A-B-C core of the *Veratrum* alkaloids *J. Org. Chem.* **2013**, *78*, 8347-8441.

214. Taber, D. F.; Paquette, C. M.; Tian, W. Cyclohexanones by Rh-mediated intramolecular C-H insertion *J. Org. Chem.* **2013**, *78*, 9772-9780.

**Patents**

"Treatment of osteoporosis and autoimmune disease with astrogorgiadiol" US7345035 issued March 18, 2008

"Methods of making stable, homogenous potassium hydride dispersions" Filed Feb 4, 2010 U.S. Appln. No 12/700,161

"An –NH- terminated silicon surface and a method for its preparation" Submitted Oct 2011 U.S. Appln. No. 61/416,959

**Books**

Taber, D.F. Intramolecular Diels-Alder and Alder Ene Reactions, V. 18 of Reactivity and Structure Concepts in Organic Chemistry, Springer-Verlag, New York, 1984.

Bell, C.E., Jr.; Clark, A.K.; Taber, D.F.; Rodig, O.R. Organic Chemistry Laboratory: Standard & Microscale Experiments, 2nd Ed. Saunders College Publishing, Philadelphia, 1996.

Bell, C.E., Jr.; Taber, D.F.; Clark, A.K. Organic Chemistry Laboratory: Standard & Microscale Experiments, 3rd Ed. Harcourt College Publishers, Orlando, Florida, 2001.

Taber, D.F. Organic Synthesis: State of the Art 2003-2005, Wiley, New York, 2006

Taber, D. F. Organic Spectroscopic Structure Determination: A problem-based learning approach, Oxford University Press, New York, 2007.

Taber, D.F. Organic Synthesis: State of the Art 2005-2007 Wiley, New York, 2008

Taber, D. F. Organic Synthesis: State of the Art 2007-2009, Oxford University Press, New York, 2011.

Taber, D. F. Organic Synthesis: State of the Art 2009-2011, Oxford University Press, New York, 2013.

**Contributed Chapters**

Taber, D.F.; Hennessy, M.J.; Hoerrner, R.S.; Raman, K.; Ruckle, R.E., Jr.; Schuchardt, J.S.Cyclopentane Construction by Rh-Catalyzed Intramolecular C-H Insertion: Scope and Selectivity.in Catalysis of Organic Reactions, Blackburn, D.W., Ed. Marcel Dekker, Inc., New York, 1990, pp. 43-60.

Taber, D.F. Carbon-Carbon Bond Formation by C-H Insertion. Comprehensive Organic Synthesis, V. 3, Pattenden, G. Ed., Pergamon Press,

Oxford, 1991.

Taber, D.F.; Askani, R. Synthesis of Nitro, Nitroso and Related Compounds. Comprehensive Organic Synthesis, V. 6, Winterfeldt, E. Ed., Pergamon Press, Oxford, 1991.

Taber, D.F. Formation of C-C Bonds by C-H Insertion. Houben-Weyl, Methods of Organic Chemistry, V. E21, Helmchen, G. Ed., Georg Thiem Verlag, Stuttgart, 1995, p. 1127.

Taber, D.F.; Stiriba, S.-E. Natural Product Synthesis by Rh-Mediated Intramolecular C-H Insertion Organic Synthesis Highlights IV, H.-G. Schmalz, Ed. Wiley-VCH, Weinheim, 2000.

Taber, D.F.; Louey, J.P.; Wang, Y.; Zhang, W. Cyclometallation of a Computationally Designed Diene: Synthesis of (-)-Androst-4-ene-3,16-dione Computational Organometallic Chemistry, T.R.Cundari, Ed. . Marcel Dekker, Inc., New York, 2001, pp. 205-216.

Taber, D.F.; Lahuerta, P.; Louey, J.P.; Malcolm, S.C.; Meagley, R.P.; Stiriba, S.-e.; You, K.K.Rhodium-Mediated Intramolecular C-H Insertion: Probing the Geometry of the Transition State.Computational Organometallic Chemistry, T.R.Cundari, Ed. . Marcel Dekker, Inc., New York, 2001, pp. 217-236.

Taber, D.F.; Joshi, P. V. Cyclopentane Construction by Rhodium(II)-Mediated Intramolecular C-H Insertion. Modern Rhodium-Catalyzed Organic Reactions. P. A. Evans, Ed. Wiley-VCH,Weinheim, 2005. pp. 357-377.

Invited Lectures

1982 Johns Hopkins University, Baltimore, MD, October 13

Temple University, Philadelphia, PA, October 21

ICI Americas, Wilmington, DE, November 2

1983 NIADDK-NHLBI Organic Chemistry Discussion Group, Jan

Vanderbilt University, Nashville, TN, March 31

1984 Symposium, "Latest Trends in Organic Synthesis," Blacksburg, VA, May 30

Columbia University, New York, NY, July 5

Millersville University, Millersville, PA, October 10

Dupont Experimental Station, Wilmington, DE, November

St. Joseph's University, Philadelphia, PA, November 28

1985 Rutgers, Newark, NJ, March 28

Schering Corporation, Bloomfield, NJ, April 17

Philadelphia Organic Chemists' Club, Philadelphia, PA,

Tohoku College of Pharmacy, Sendai, Japan, July 9

University of Tokyo, Tokyo, Japan, July 17

Tokyo Institute of Technology, Tokyo, Japan, July 19

SUNY Stony Brook, Stony Brook, NY, October 3

CUNY, Queens College, Flushing, NY, October 23

Aberdeen Proving Ground, MD, October 30

University of Virginia, Charlottesville, VA, November 1

Dickinson College, Carlisle, PA, November 15

1986 College of William and Mary, Williamsburg, VA, Jan 17

Hoffmann-LaRoche, Nutley, NJ, January 23

Lederle Laboratories, Pearl River, NY, January 24

Sandoz Research Institute, East Hanover, NJ, March 31

University of Grenoble, Grenoble, France, May 23

ETH, Zurich, Switzerland, June 2

Ruprecht-Karls Univ., Heidelberg, W. Germany, June 4

University of Reims, Reims, France, June 5

Dupont Central Research, Wilmington, DE, August 26

Susquehanna Valley Section, ACS, Wilkes-Barre, PA,

Stuart Pharmaceuticals, Wilmington, DE, December 9 1

1987 Dupont Biomedical Products, Wilmington, DE, March 25

Givaudan Corporation, Clifton, NJ, March 27

Bryn Mawr College, Bryn Mawr, PA, April 10

Middle Atlantic Regional Meeting, ACS, Pomona, NJ, May

American Cyanamid, Bound Brook, NJ June

Shippensburg University, Shippensburg, PA October 23

Dupont Jackson Labs, Deepwater, NJ October 30

University of Rochester, Rochester, NY, December 2

1988 Pennsylvania State University, State College, PA,

University of Houston, Houston, TX, April 22

Organic Reactions Catalysis Society, San Antonio, TX,

Takasago International Corp., Tokyo, Japan, May 24

Tokyo Institute of Technology, Tokyo, Japan, May 25

Sagami Chemical Research Center, Kanagawa, Japan, May

Kyoto Institute of Technology, Kyoto, Japan, June 3

Kyushu Symposium on Natural Products Chemistry,

Kyushu University, Fukuoka, Japan, June 7

Du Pont Central Research, Wilmington, DE, September 23

Kansas State University, Manhattan, KS, November 3

University of Kansas, Lawrence, Kansas, November 4

1989 CRDCC, U. S. Army, Aberdeen, MD, January 19

Hunter College, New York, NY, March 3

Ciba-Geigy, Summit, NJ, April 6

Ciba-Geigy, Basel, Switzerland, May 9

Howard University, Washington, D.C., Sept. 15

SUNY, Binghamton, NY, October 20

Allergan, Inc., Irvine, CA,, November 3

Kyowa Hakko Co., Shizuoka, Japan, November 6

Nagoya University, Nagoya, Japan, November 7

International Symposium on Carbene Chemistry, Kyoto Japan, Nov. 9

Southeast Regional Meeting, ACS, Baton Rouge, LA,

1990 Lycoming College, Williamsport, PA, Feb. 14

UMBC, Baltimore, MD, March 6

Emory University, Atlanta, GA, April 17

Middle Atlantic Regional Meeting, ACS, Madison, NJ,

Eli Lilly & Co., Indianapolis, IN, June 26

Rutgers University, Newark, NJ, October 11

University of Pennsylvania, Philadelphia, October 29

1991 New York Academy of Sciences, New York, NY Jan 8

Brigham Young University, Provo, Utah March 21

Hoffmann-La Roche, Basel, August 19

University of Basel August 20

University of Konstanz August 21

Academy of Sciences, Berlin, August 23

1992 Columbia University, New York, Jan 16

Dupont Central Research & Development, Feb 14

Allergan, Inc., Irvine, CA, 10 March

Stanford University, Stanford, CA April 22

ICI Americas, Richmond, CA April 23

Texas A&M, College Station, TX May 13

University of Monterrey, Mexico June 12

Adelphi University, Garden City, NY Sep 17

University of Maryland, College Park, MD Sep 22

Fordham University, Bronx, NY Oct. 20

Georgetown University, Washington, D.C. Oct.27

Crystal City,

1993 E. Stroudsburg State Univ.; East Stroudsburg, PA Feb. 2

ACS National Meeting, Denver, March 29

Peking University, Beijing, June 7

USA-Japan-China Symposium on Catalysis, Beijing, June 10

Shanghai Institute of Organic Chemistry, June 16

Fudan University, Shanghai, June 17

SUNY Albany Oct 5

SUNY Stony Brook Oct 28

Scientific Conference on Chemical Defense Research, Aberdeen, MD Nov

1994 Syracuse University, Syracuse, NY Sep 20

Western Maryland College, November 28

SmithKline Beecham, King of Prussia, PA Dec 6

University of Delaware, Newark, DE Dec 7

1995 Syntex Pharmaceuticals, Palo Alto, CA April 20

University of California, Davis April 21

DuPont Central Research April 24

78th Canadian Society for Chemistry Conference and Exhibition, Guelph, May 31 (Invited speaker)

Drexel University, Philadelphia, PA June 7

Swarthmore College, Swarthmore, PA September 25

Dupont Merck Pharmaceuticals, Deepwater, NJ Oct 3

Rensselaer Polytechnic, Troy, NY Oct 12

GE Central Research, Schenectady, NY Oct 13

University of Victoria, Victoria, BC Oct 19

University of British Columbia, Vancouver, BC Oct 20

The Upjohn Company, Kalamazoo, Michigan Nov 10

1996 Towson State University, Towson, MD April 18

Middle Atlantic Regional Meeting, American Chemical Society, Villanova, PA (Invited speaker)

SIPSYS, Avrille, France, June 25

Ecole Nationale Superieure, Paris, June 26

Gif-sur-Yvette, June 28th

International Conference on Organic Synthesis, Amsterdam, June 30- July 4 (Invited speaker)

14th Biennial Conference on Chemical Education, Clemson University, Aug 4-8 (Invited speaker)

Schering-Plough, Kenilworth, NJ, Sep. 26

Abbott Labs, Chicago, IL, Nov. 7

Rider College, Lawrenceville, NJ, Nov. 18

1997 Pharmacopeia, Inc., Princeton, NJ Jan. 16

Manhattan College, New York City, Jan. 22

North Jersey ACS Organic Section, Union College, Cranford, NJ April 28

Bryn Mawr College, Bryn Mawr, PA Oct. 3rd

Southeast Regional Meeting, American Chemical Society, Roanoke, VA, Oct. 21 (Invited speaker)

IUPAC International Conference on Biodiversity and Bioresources, Phuket, Thailand (Invited speaker)

Rowan University, Glassboro, NJ December 2

1998 Dickinson College, Carlisle, PA March 5

U. of Barcelona, Spain June 30

Johnson-Matthey, West Deptford, NJ August 13

ACS National Meeting, Boston, MA August 26 (invited speaker)

Lafayette College, Easton, PA September 8

Symposium, "Latest Trends in Organic Synthesis," Gainesville, FL, Oct 30 (invited speaker)

Smith Kline Beecham, November 17

1999 University of Hong Kong January 15

Chinese University of Hong Kong January 19

University of Science and Technology, Hong Kong January 20

Middle Atlantic Regional Meeting, American Chemical Society, May 17 (invited speaker)

Organometallics in Organic Synthesis (OMCOS), Versailles, France July 21 (invited speaker)

Gordon Research Conference on Natural Products, Henniker, NH July 26 (invited speaker)

University of Delaware, Newark, Sep. 17

Elizabethtown College, Elizabethtown, PA Sept. 29

Franklin & Marshall College, Lancaster, PA Sept. 29

Florida State University, Tallahassee, Oct. 5

SERMACS (Southeast Regional Meeting), Knoxville, TN Oct. 19 (invited speaker)

Sloan-Kettering, New York, NY Oct. 26

Salisbury State University, Salisbury, MD Nov. 2

2000 National Institutes of Health, Bethesda, MD March 9

International Conference on Organic Synthesis, Warsaw, July 1- July 5 (Invited speaker)

Stockton State University, Pomona, NJ Oct. 9

Johns Hopkins University, Baltimore, MD Oct 10

2001 Brigham Young University, Provo, UT January 24

Reed College, Portland, OR January 26

Oregon State University, Corvallis, OR January 29

Wyeth-Ayerst, Pearl River, NY March 29

CB Research, New Castle, DE June 12

OMCOS-11, Taipei, Taiwan July 23

Research Review, Center for Catalytic Science and Technology, University of Delaware, Oct.11

Indiana U. of Pennsylvania, Indiana, PA Nov. 7

Allegheny College, Meadville, PA Nov. 8

Edinboro U. of Pennsylvania, Edinboro, PA Nov. 8

Duquesne University, Pittsburgh, PA Nov. 9

Ursinus College, Collegeville, PA Nov. 16

2002 South China Agricultural University, Guangzhou, Jan. 7

Temple University, Philadelphia, PA March 28

Sphinx Pharmaceuticals, Research Triangle Park, NC June 7

UC Irvine, Sept. 12

Scripps Institute, San Diego, CA Sept. 13

CalTech, Pasadena, CA Sept. 16

2003 KAIST, Daejon, Korea March 17

Korea University, Seoul, March 19

Seoul National University, March 20

ACS National Meeting, New Orleans, March 24

Philadelphia Organic Chemists' Club, April 24 (invited speaker)

Salisbury University, Nov. 5

2004 Rutgers University, January 20

Lehigh University, February 4

Concurrent Pharmaceuticals, February 12

ACS National Meeting, Anaheim, March 29 (invited speaker)

Bristol-Myers Squibb, New Brunswick, NJ June 3

International Conference, Chemistry Biology Interface: Synergistic New

Frontiers, Delhi, India, Nov. 22-77 (plenary lecturer)

2005 Rowan University Feb 28

Symposium on the Chemistry and Biology of Biomolecules, Montpellier, France March 20-25 (invited speaker)

UT Southwestern, Dallas Sep 21

Southern Methodist University, Dallas, TX September 22

UT Arlington, Arlington, TX September 23

Singapore International Chemical Conference 4 Dec. 8-10 (invited speaker)

2006 Lilly Pharmaceuticals, Indianapolis, IN Jan. 17

IUPUI, Indianapolis, IN Jan 18

Notre Dame University, South Bend, IN Jan 19

Merck Process, Rahway, NJ Feb. 1

ACS National Meeting, Atlanta, GA (invited speaker), H.C. Brown Award Symposium, March 29

ACS Middle Atlantic Regional Meeting, Hershey, PA (invited symposium speaker), June 4

Morgan State University, Oct. 9

2007 University of Oxford, April 24

University of Nottingham, April 25

Symposium on C-H Activation in Organic Synthesis, Loughborough, England, April 26 (invited speaker)

AstraZeneca Macclesfield, April 27th

IUPAC Organometallics in Organic Synthesis, Nara, Japan August 2nd

University of the Sciences, Philadelphia Sept. 24th

Rochester Institute of Technology, Oct. 24th

2008

University of Munich Jan 16th

University of Illinois, Chicago March 13

Infinity Pharmaceuticals, Cambridge, MA June 24

University of Florence July 7

2008 Lead speaker, Symposium "Innovations in the Organic Chemistry Curriculum" 20th Biennial Conference on Chemical Education, Bloomington, IN July 2008

2009

University of Delaware March 6th

Schering-Plough April 16th

2nd Pennsylvania Organic Chemistry Curriculum Development Conference, Immaculata University, Immaculata, PA May 27th (invited speaker)

Invited speaker, meeting on the Schweinfurthins and Related Natural Products, NIH/Frederick, December 11, 2009

2010

West China School of Pharmacy, Chengdu, May 10th

USTC, Hefei, May 13th

University of Science and Technology, Qingdao, May 15th

Institute of Materia Medica, Beijng, May 17th

Peking University, Beijing, May 18th

1st Annual World Congress of Catalytic Asymmetric Synthesis-2010, Beijing, May 20th (invited speaker)

University of Utah, Salt Lake City, UT June 11th

ACS National Meeting, Boston, August 21stst (invited speaker)

Cephalon, Inc. West Chester, PA Oct. 26th

Pacifichem, Honolulu, December 15, 19

2011

Fifth International Symposium "The Chemistry of Aliphatic Diazo Compounds: Advances and Outlook" St. Petersburg, Russia, June 7-8 (Invited Speaker)

Gordon Research Conference on Natural Products, July 24-29 ( Invited Speaker)

West Virginia University, Oct 5

Philadelphia Organic Chemists Club, Oct 27 (Allan R. Day Award)

University of New Orleans, Nov 11