

CURRICULUM VITAE

May 2014

Name: James C. Dabrowiak
Department of Chemistry
1-014 Center for Science and Technology

College and Department: Arts and Sciences
Department of Chemistry

Academic Specialization: Biophysics /Biochemistry /Bioinorganic Chemistry

Personal Data: Born: South Bend, Indiana - April 11, 1942

Education: Post Doctoral, Ohio State University, 1970-72
Ph.D., Chemistry/Western Michigan University, 1970
M.S., Chemistry/Western Michigan University, 1967
B.S., Chemistry/Purdue University, 1965

Employment and Experience:

1984 - present SYRACUSE UNIVERSITY
Professor of Chemistry

1/85 - 4/85 ROSWELL PARK MEMORIAL INSTITUTE
Buffalo, NY. On leave, as an American Cancer Society "Scholar" at the Unit of Theoretical Biology (Dr. Robert Rein's Laboratories). Computer modeling and interaction energy calculations on DNA affinity cleaving agents bound to DNA.

6/85 - 12/85 MAX PLANCK INSTITUT für Biophysikalische Chemie,
Göttingen, W. Germany. On leave, as an American Cancer Society "Scholar", (Dr. T. Jovin's Laboratories). Stabilization of left hand helical DNA in solution using transition metal complexes.

1/92 - 7/92 UNIVERSITY OF MISSISSIPPI. On leave at the
Medical Center, Jackson, MS (Dr. J.B. Chaires's Laboratories)
Binding of *tris* phenanthroline Ruthenium (II) to DNA.
(Dr. J. Correia's Laboratories) Metal Complexes as probes of protein structure. Vanadate cleavage of tubulin.

1/02 - 5/02 UPSTATE MEDICAL UNIVERSITY
On leave in the laboratory of A. Soud. Investigating and modeling cisplatin antitumor activity.

1979 - 1984 SYRACUSE UNIVERSITY
Associate Professor of Chemistry

1972 - 1979 SYRACUSE UNIVERSITY
Assistant Professor of Chemistry

Courses Taught:

CHE 511	Inorganic Chemistry
CHE 522	Inorganic Chemistry Laboratory
CHE 555	Biophysics of Nucleic Acids
CHE 103, CHE 113	Chemistry for Non-Scientists
CHE 474/674	Structural and Physical Biochemistry
CHE 615, CHE 625	Advanced Inorganic Chemistry, Crystal Field Theory, Stereochemistry, Metal Complexes as Probes of DNA Structure.
CHE 116	General Chemistry
CHE 412/612	Metals in Medicine
CHE 624	Nanomedicine

Creative work

Books/Journals/Patent

“Metals in Medicine”, Wiley-Blackwell, Chichester, UK, 2009. Graduate/undergraduate textbook on metal containing compounds for treating and detecting disease.

“Metals in Medicine”, Guest Editor of a special issue of *Inorganica Chimica Acta*, **393**, 1-340 (2012)

Patent. SYRNY1-#1914375. Nov. 1, 2011. Maye, M. M., Dabrowiak, J. C., Alexander, C. M. System and method for delivery of doxorubicin using gold nanoparticles.

Publications:

1. "Utilization of Steric Compression to Assign the Absolute Configuration and Ring Conformation of Some Transition Metal Complexes", **J.C. Dabrowiak** and D.W. Cooke, *J. Am. Chem. Soc.*, **92**, 1097-9 (1970).
2. "Metal Complexes of 1-Substituted 3-Hydroxyureas", R.E. Harmon, **J.C. Dabrowiak**, D.J. Brown, S.K. Gupta, M. Herbert, and D. Chitharanjan, *J. Med. Chem.*, **13**, 577-9 (1970).
3. "Gas-Liquid Chromatography of the Optical Isomers of Threonine and Allotheornine", **J.C. Dabrowiak** and D. W. Cooke, *Anal. Chem.*, **43**, 791-3 (1971).
4. "Synthesis and Electrochemical Behavior of a New Series of Macrocyclic Complexes of Iron Produced by Oxidative Dehydrogenation and Tautomerization", **J.C. Dabrowiak**, F.V. Lovecchio, V.L. Goedken and D.H. Busch, *J. Am. Chem. Soc.*, **94**, 5502-4 (1972).

5. "High- and Low-Spin Six Coordinate Complexes of Iron (II) with a Saturated Tetradentate Macrocyclic Ligand", **J.C. Dabrowiak**, P.H. Merrell and D.H. Busch, *Inorg. Chem.*, **11**, 1979-88 (1972).
6. "Transmission of Electronic Effects in Cobalt (III) Complexes of Macrocyclic Ligands: ¹H Nuclear Magnetic Resonance Study", E.S. Gore, **J.C. Dabrowiak**, and D.H. Busch, *J. Chem. Soc. Chem. Commun.*, 923-4 (1972).
7. "The Crystal Structure and Absolute Configuration of Linear Tetradentate Cobalt (III) Complex: (+)470-β-cis-Dinitro (5 methyl-1,4,8,11-tetra-azaundecane) cobalt (III) Bromide", P.W.R. Corfield, **J.C. Dabrowiak** and E.S. Gore, *Inorg. Chem.*, **12**, 1734 (1973).
8. "Mossbauer Spectra of Iron Complexes with Macrocyclic Ligands," **J.C. Dabrowiak**, P.H. Merrell, J.A. Stone and D.H. Busch *J. Am. Chem. Soc.*, **95**, 6613-22 (1973).
9. "The Reaction of Acetaldehyde with Some Optically Active Cobalt (III) Complexes Containing Coordinated Glycine", **J.C. Dabrowiak** and D. W. Cooke, *Inorg. Chem.*, **14**, 1305-9 (1975).
10. "Iron Complexes with Macrocyclic Ligands Containing the α-Diamine Functional Unit and Its Position-Specific Formation Under the Influence of the Iron Atom", **J.C. Dabrowiak** and D.H. Busch, *Inorg. Chem.*, **14**, 1881-8 (1975).
11. "Molybdenum and Tungsten Carbonyl Complexes with a 14-Membered Macrocyclic Ligand, Dibenzo [bi] [1.4.8.11]tetra-azacyclotetradecine", L.G. Bell and **J.C. Dabrowiak**, *J. Chem. Soc. Chem. Commun.*, 512-13 (1975).
12. "The Synthesis and Characterization of Manganese Complexes Containing a Synthetic Macrocyclic Ligand", P.S. Bryan and **J.C. Dabrowiak**, *Inorg. Chem.*, **14**, 296-9 (1975).
13. "Transition Metal Complexes Containing an Optically Active Macrocyclic Ligand. Manganese (III), Nickel (II) and Copper (II)", P.S. Bryan and **J.C. Dabrowiak**, *Inorg. Chem.*, **14**, 299-302 (1975).
14. "Manganese and Zinc Complexes Incorporating an Unsaturated Cyclic Schiff Base Ligand", D.R. Neves and **J.C. Dabrowiak**, *Inorg. Chem.*, **15**, 129-34 (1976).
15. "Synthesis and Characterization of a Bis Azo-Macrocyclic Ligand and its Nickel (II) Complex", D.P. Fisher, F.C. McElroy, D.J. Macero and **J. C. Dabrowiak** *Inorg. Nucl. Chem. Letters*, **12**, 435 (1976).
16. "Synthesis and Characterization of an Optically Active Macrocyclic Cobalt (III) Complex", **J.C. Dabrowiak** and P.S. Bryan, *Inorg. Nucl. Chem. Letters*, **12**, 485-9 (1976).
17. "Electrochemical Generation of A Dimeric Macrocyclic Complex," F.C. McElroy and **J.C. Dabrowiak**, *J. Am. Chem. Soc.*, **98**, 7112-13 (1976).

18. "Resonance Raman Studies of Macrocyclic Complexes. I. Structural and Electronic Effect in Synthetic Metal (II) Porphyrin Analogues", W.H. Woodruff, R. W. Pastor and **J.C. Dabrowiak**, *J. Am. Chem. Soc.*, **98**, 7999-8006 (1976).
19. "Resonance Raman Studies of Macrocyclic Complexes. II. Anti-Resonance and Selective Intensity Enhancement in Synthetic Metal (II) Porphyrin Analogues", L. Nafie, R. Pastor, **J.C. Dabrowiak**, and W. Woodruff, *J. Am. Chem. Soc.*, **98**, 8007-14 (1976).
20. "Accessibility of Manganese Oxidation States. Control by Pentaaza Macrocyclic Ligands", **J.C. Dabrowiak**, L.A. Nafie, P.S. Bryan and A.T. Torkelson, *Inorg. Chem.*, **16**, 540-4 (1977).
21. "The Electrochemical Redox Properties of a Series of Manganese Macrocyclic Complexes", F.C. McElroy, J.C. Dabrowiak and D.J. Macero, *Inorg. Chem.*, **16**, 947-50 (1977).
22. "Macrocyclic Complexes Bearing Photoactive Substituent Groups. I. The Azo Linkage", D.P. Fisher, V. Piermattie and J.C. Dabrowiak, *J. Am. Chem. Soc.*, **99**, 2811 (1977).
23. " A Spectroscopic Investigation of the Metal Binding Site of Bleomycin A₂. The Cu(II) and Zn(II) Derivatives", J.C. Dabrowiak, W. Longo, M. Van Husen, F.T. Greenaway and S. Crooke, *Biochem. Biophys. Acta*, **517**, 517-26 (1978).
24. "The Reactivity of Macrocyclic Ligands. Bromination of a Tetraazaannulene", G.P. Ferrara and J.C. Dabrowiak, *Inorg Nucl. Chem. Lett.* **14**, 31-5 (1978).
25. "EPR Studies of Axial Ligation of a Low-Spin Cobalt (II) Macrocyclic Schiff Base Complex", A. Pezeshk, F.T. Greenaway, J.C. Dabrowiak and G. Vincow, *Inorg. Chem.*, **17**, 1717-25 (1978).
26. "The Transition Metal Binding Site of Bleomycin A₂. A¹³C nmr Study of the Zn (II) and Cu (II) Derivatives", J.C. Dabrowiak, F.T. Greenaway and R. Grulich, *Biochemistry*, **17**, 4090-6 (1978).
27. "The Transition Metal Binding Properties of a 3rd Generation Bleomycin Analogue, Tallysomyin", F.T. Greenaway, J.C. Dabrowiak, M. Van Husen, R. Grulich and S.T. Crooke, *Biochem. Biophys. Res. Commun.*, **85**, 1407-14 (1978).
28. "Bleomycin: Chemical, Biochemical and Biological Aspects", J.C. Dabrowiak, F.T. Greenaway and F.S. Santillo in *Bleomycin* S. Hecht, ed. Springer-Verlag, New York, New York, 1979, p.137.
29. "The Redox Properties of Bleomycin and Tallysomyin and a Series of Their Metalloderivatives", J.C. Dabrowiak and F. S. Santillo, *J. Electrochem. Soc.*, **126**, 2091-5 (1979).
30. "Electrochemical Investigation of Some Azomacrocyclic Ligands and Their Nickel (II) Complexes", J.C. Dabrowiak, D.P. Fisher, F.C. McElroy and D.J. Macero, *Inorg. Chem.*, **18**, 2304-7 (1979).

31. "The Iron Complexes of Bleomycin and Tallysomycin", J.C. Dabrowiak, F.T. Greenaway, F.S. Santillo and S.T. Crooke, *Biochem. Biophys. Res. Comm.* **91**, 721-9 (1979).
32. "Metal Complexes with Antitumor Antibiotics", J.C. Dabrowiak, in *Metal Ions in Biological Systems*, H. Sigel, ed Marcel Dekker, Inc., Vol. 11, 305-36 (1980).
33. "A ^{13}C nmr Study of Tallysomycin and Its Zinc (II) Complex", F.T. Greenaway, J.C. Dabrowiak, R. Grulich and S.T. Crooke, *Org. Mag. Res.*, **13**, 270-3 (1980).
34. "Synthesis and Reactivity of a Series of [14]Azannulenes", D.A. Place, G.P. Ferrara, J.J. Harland and J.C. Dabrowiak, *J. Heterocycl. Chem.*, **17**, 439-43 (1980).
35. "The Coordination Chemistry of Bleomycin", J.C. Dabrowiak, *J. Inorg. Biochem.*, **13**, 317-37 (1980).
36. "The Iron Bleomycins", in *Advances in Chemistry Series A.E. Martel, Ed.*, American Chemical Society, Washington, D.C., **140**, 237-48 (1980).
37. "The Copper(II) Complexes of the Antiulcer Drug Cimetidine", F.T. Greenaway, L. Brown, J.C. Dabrowiak, M.R. Thompson and V.W. Day, *J. Am. Chem. Soc.*, **102**, 7782 (1980).
38. "Cobalt (III) Complex of Pseudotetrapeptide A of Bleomycin", J.C. Dabrowiak and M. Tsukayama, *J. Am. Chem. Soc.*, **103**, 7543 (1981).
39. "The Transition Metal Binding Site of Bleomycin", M. Tsukayama, C.R. Randall, F.S. Santillo and J.C. Dabrowiak, *J. Am. Chem. Soc.*, **103**, 158-161 (1981).
40. "Bleomycin", J.C. Dabrowiak, in *Advances in Inorganic Biochemistry* G.L. Eichhorn and L.G. Marzilli, Eds. Elsevier Publishing Company, New York, NY, Vol.4, 69-113 (1982).
41. "The Binding of Copper Ions to Daunomycin and Adriamycin", F.T. Greenaway and J.C. Dabrowiak, *J. Inorg. Biochem.*, **16**, 91 (1982).
42. "The Electronic Ground State and Coordination Environment of Fe (II) Ferrous Bleomycin", J.C. Dabrowiak, F.T. Greenaway, and W.M. Reiff, *J. Inorg. Biochem.*, **16**, 161 (1982).
43. "Interaction of Copper(II) Ions with the Daunomycin-Calf Thymus DNA Complex", J.C. Dabrowiak and M. Spinelli, *Biochemistry*, **21**, 5862-70 (1982).
44. "Sequence Specificity of Actinomycin D and Netropsin Binding to pBR322 DNA Analyzed by Protection From DNase I", M.J. Lane, J.N. Vournakis and J. C. Dabrowiak, *Proc. Natl. Acad. Sci. USA*, **80**, 3260-4 (1983).
45. "Raman Spectral Studies of Bleomycin A₂ and Related Structural Fragments: A Probe for Bleomycin-DNA Interactions", T.B. Freedman, F.S. Santillo, C.G. Zimba, L.A. Nafie and J.C. Dabrowiak, *J. Raman Spec.*, **14**, 266-70 (1983).
46. "Sequence Specificity of Drug-DNA Interactions. A. Review", J.C. Dabrowiak, *Life Sci.*, **32**, 2915-31 (1983).

47. "Absorption and Circular Dichroism Studies of a Gold(I)-DNA Complex", C.E. Blank and J.C. Dabrowiak, *J. Inorg. Biochem.*, **21**, 21 (1984).
48. "Synthesis Characterization and Properties of a Group of Platinum (IV) Complexes", R.J. Brandon and J.C. Dabrowiak, *J. Med. Chem.*, **27**, 861-5 (1984).
49. "DNA Breakage by a Perhydrate Complex of *cis*-dichloro-*cis*-diammine-*trans*-dihydroxyplatinum(IV) (*cis,cis,trans*-Pt (IV) Cl₂ (NH₃)₂(OH)₂", J.F. Vollano, E.E. Blatter, and J.C. Dabrowiak, *J. Am. Chem. Soc.*, **106**, 2732-3 (1984).
50. "Interaction of the Antitumor Agents *cis cis trans*-Pt(IV)(NH₃)₂Cl₂(OH)₂ and *cis,cis,trans*-Pt(IV)[(CH₃)₂CHNH₂]₂Cl₂(OH)₂ and their Reduction Products with PM2-DNA", E.E. Blatter, J.F. Vollano, B.S. Krishnan and J.C. Dabrowiak, *Biochemistry*, **23**, 4817-20 (1984).
51. "Platinum(IV) Antitumor Agents", E.E. Blatter, J.F. Vollano, B.S. Krishnan and J.C. Dabrowiak, *Prog. Clin. Biol. Res.*, **172**, 185-91 (1985).
52. "Footprinting Analysis as a Means of Quantitating Antitumor Drug-DNA Interactions", M.J. Lane, J.N. Vournakis and J.C. Dabrowiak, *Prog. Clin. Biol. Res.*, **172**, 145-53 (1985).
53. "Theoretical Analysis of the Footprinting Experiment", J. Goodisman, and J.C. Dabrowiak, *J. Biomol. Struct. and Dynamics*, **2**, 967-79 (1985).
54. "Computer-Assisted Microdensitometric Analysis of Footprinting Autoradiographic Data", J.C. Dabrowiak, A. Skorobogaty, N. Rich, C.P.H. Vary and J.N. Vournakis, *Nucleic Acids Res.*, **14**, 489-99 (1986).
55. "The Synthesis and Characterization of 1,1-*bis*(aminomethyl)cyclohexaneplatinum(II) Compounds and the Crystal Structure Determination of 1,1-*bis*(aminomethyl)cyclohexaneaquosulphatoplatinum(II) Monohydrate", H.A. Meinema, F. Verbeek, J.W. Marsman, E.J. Bulten, J.C. Dabrowiak, M.S. Krishnan and A.L. Spek, *Inorg. Chem. Acta*, **114**, 127-35 (1986).
56. "Synthesis and Structure of Dinuclear Complexes of Platinum(IV) Having *cis*-Diamine Geometry", S. Al-Baker, J.F. Vollano and J.C. Dabrowiak, *J. Am. Chem. Soc.*, **108**, 5643-4 (1986).
57. "Deoxyribonucleic Acid Cleavage Specificity of a Series of Acridine-and Acodazole-Iron Porphyrins as Functional Bleomycin Models", J.W. Lown, S.M. Sondhi, C.-W. Ong, A. Skorobogaty, H. Kishikawa and J.C. Dabrowiak, *Biochemistry*, **25**, 5111-17 (1986).
58. "Molecular Recognition Between Oligopeptides and Nucleic Acids: Novel Imidazole-Containing Oligopeptides Related to Netropsin which Exhibit Altered DNA Sequence Specificity", J.W. Lown, K. Krowicki, V.G. Bhat, A. Skorobogaty, B. Ward and J.C. Dabrowiak, *Biochemistry*, **25**, 7408-16 (1986).
59. "DNA Binding Specificity of a Series of Cationic Metalloporphyrin Complexes", B. Ward, A. Skorobogaty and J.C. Dabrowiak, *Biochemistry*, **25**, 7827-33 (1986).

60. "DNA Cleavage Specificity of a Group of Cationic Metalloporphyrins", B. Ward, A. Skorobogaty and J.C. Dabrowiak, *Biochemistry*, **25**, 6875-83 (1986).
61. "Cationic Porphyrins as Probes of DNA Structure", S.D. Bromley, B. Ward, and J.C. Dabrowiak, *Nucleic Acids Res.*, **14**, 9133-48 (1986).
62. "Comparative Antitumor Studies on Platinum(II) and Platinum(IV) Complexes Containing 1,2-Diaminocyclohexane", J.F. Vollano, S. Al-Baker, J.E. Schurig and J.C. Dabrowiak, *J. Med. Chem.*, **30**, 716-19 (1987).
63. "Quantitative Footprinting Analysis of the Netropsin DNA Interaction", B. Ward, R. Rehfuss and J.C. Dabrowiak, *J. Biomol. Struct. Dynamics* **4**, 685-95 (1987).
64. "Oxidation of a Dinuclear Platinum(II) Complex with Hydrogen Peroxide", S. Al-Baker and J.C. Dabrowiak, *Inorg. Chem.*, **26**, 613-17 (1987).
65. "DNA Binding Specificity of the Gold(III) Complex, $(C_2H_5)_3 PAuBr_3$ ", B. Ward and J.C. Dabrowiak, *J. Am. Chem. Soc.*, **109**, 3810-11 (1987).
66. "Platinum Antitumor Agents", J.C. Dabrowiak and W.T. Bradner, *Prog. Med. Chem.*, **24**, 129-58 (1987).
67. "Molecular Recognition Between Oligopeptides and Nucleic Acids. Monocationic Imidazole-Lexitropsins That Display Enhanced GC Sequence Dependent DNA Binding", K. Kissinger, K. Krowicki, J.C. Dabrowiak and J.W. Lown, *Biochemistry*, **26**, 5590-5 (1987)
68. "Molecular Recognition Between Oligopeptides and Nucleic Acids-Rational Design of Sequence Specific DNA Binding Agents", K. Krowicki, M. Lee, J.A. Hartley, B. Ward, J.C. Dabrowiak and J.W. Lown, in *Structure and Expression Vol. 2, DNA and Its Drug Complexes*, R.H. Sarma, and M.H. Sarma eds., Adenine Press, 251.
69. "Determination of Netropsin-DNA Binding Constants from Footprinting Data", B. Ward, R. Rehfuss, J. Goodisman and J.C. Dabrowiak, *Biochemistry*, **27**, 1198-205 (1988).
70. "Interaction of Cationic Manganese Porphyrins with DNA. A Binding Model", G. Raner, B. Ward and J.C. Dabrowiak, *J. Coord. Chem.*, **19**, 17-23 (1988).
71. "Rate Enhancements in the DNase I Footprinting Experiment", B. Ward, R. Rehfuss, J. Goodisman and J.C. Dabrowiak, *Nucleic Acids Res.*, **16**, 1359-69 (1988).
72. "Esperamicins, A Class of Potent Antitumor Antibiotics: Mechanism of Action", B.H. Long, J. Golik, J.C. Dabrowiak, S. Musial, K.W. Brookshire and T.W. Doyle, *Proc. Natl. Acad. Sci. USA*, **86**, 2-6 (1989).
73. "Porphyrins as Probes of DNA structure and Drug-DNA Interactions", G. Raner, J. Goodisman, and J. C. Dabrowiak, in *Metal-DNA Chemistry*, American Chemical Society Symposium Series **402**, 74-89 (1989).

74. "Molecular Recognition Between Oligopeptides and Nucleic Acids: Sequence Specific Binding of the Naturally Occurring Antibiotic (4S)-(+)-Anthelvincin A and its (4R)-(-) Enantiomer to Deoxyribonucleic Acids Deduced from Proton NMR, Footprinting and Thermodynamic Data", M. Lee, R.G. Shea, J.A. Hartley, K. Kissinger, R.T. Pon, G. Vesnaver, K.J. Breslauer, J.C. Dabrowiak and J.W. Lown, *J. Am. Chem. Soc.*, **111**, 345-54 (1989).
75. "Quantitative Footprinting Analysis Using a DNA-Cleaving Metalloporphyrin Complex", J.C. Dabrowiak, B. Ward and J. Goodisman, *Biochemistry*, **28**, 3314-22 (1989).
76. "Quantitative Footprinting Analysis of Drug-DNA Interactions: Fe (III) Methidium-propyl-EDTA as a Probe", J. Goodisman and J.C. Dabrowiak, *Electrophoresis*, **10**, 404-12 (1989).
77. "Molecular Recognition Between Oligopeptides and Nucleic Acids. Sequence Specific Binding of (4S)-(+)- and (4R)-(-)-dihydrokikumycin B to DNA Deduced from Proton NMR, Footprinting Studies and Thermodynamic Data", M. Lee, R. Shea, J.A. Hartley, K. Kissinger, G. Vesnaver, K.J. Breslauer, R.T. Pon, J.C. Dabrowiak and J.W. Lown, *J. Mol. Recog.*, **2**, 6-17 (1989).
78. "Quantitative Footprinting Analysis of Drug-DNA Interaction", J.C. Dabrowiak and J. Goodisman, *Chemistry and Physics of DNA-Ligand Interactions*, N.R. Kallenbach, Ed. Adenine Press, 143-73 (1989).
79. "Quantitative Footprinting Analysis. Binding to a Single Site", J. Goodisman, R. Rehfuss and J.C. Dabrowiak, *Biochemistry*, **29**, 777-81 (1990).
80. "Molecular Recognition Between Oligopeptide and Nucleic Acids: The DNA Binding Specificity for a Series of *bis* Netropsin Analogues Deduced from Footprinting Analysis", K. Kissinger, J.C. Dabrowiak and J.W. Lown, *Chem. Res. Toxicology*, **3**, 162-8 (1990).
81. "Quantitative Footprinting Analysis of the Actinomycin D-DNA Interaction", R. Rehfuss, B. Ward, J. Goodisman and J.C. Dabrowiak, in *Molecular Basis of Specificity in Nucleic Acid-Drug Interactions*, B. Pullman and J. Jortner eds., Kluwer Acad. Pub., Dordrecht, Netherlands, 157-66 (1990).
82. "Thermodynamic Data from Drug-DNA Footprinting Experiments", J.C. Dabrowiak, J. Goodisman and K. Kissinger, *Biochemistry*, **29**, 6139-45 (1990).
83. "Antitumor and DNA Binding Properties of a Group of Oligomeric Complexes of Platinum(II) and Platinum(IV)", A. Peritz, S. Al-Baker, J.F. Vollano, and J.C. Dabrowiak, *J. Med. Chem.*, **33**, 2184-8 (1990).
84. "Coupled Kinetic Analysis of Cleavage of DNA by Esperamicin and Calecheamicin", H. Kishikawa, Y.-P. Jiang, J. Goodisman and J.C. Dabrowiak, *J. Am. Chem. Soc.*, **113**, 5434-40 (1991).
85. "Sequence Specificity of Drug-DNA Interactions", J. D. Dabrowiak, A. Stankus and J. Goodisman, in *Nucleic Acid Targeted Drug Design C*. Probst and T. Perun Eds. Marcel Dekker, Inc. 93-149 (1992).

86. "Quantitative Aspects of DNase I Footprinting", J. Goodisman, and J.C. Dabrowiak, in *Advances in DNA Sequence Specific Agents*, L.H. Hurley, Ed., JAI Press, Vol 1, 25-49 (1992).
87. "Actinomycin D: Binding and Enhancements in DNase I Footprinting Experiments", J. Goodisman and J.C. Dabrowiak in *Structure & Function: Volume 2: Proteins* R.H. Sarma and M.H. Sarma Eds. Adenine Press, 81-95 (1992).
88. "Quantitative DNA Footprinting", J.C. Dabrowiak, A. Stankus and J. Goodisman in *Advances in Electrophoresis*, A. Chrambach, M.J. Dunn, B.J. Radola, Eds. Vol. 5, VCH Verlagsgesellschaft, 113-36 (1992).
89. "Site-Specific Binding Constants for Actinomycin D on DNA Determined from Footprinting Data", J. Goodisman, R. Rehfuss, B. Ward and J.C. Dabrowiak, *Biochemistry*, **31**, 1046-58 (1992).
90. "Structural Changes and Enhancements in DNase I Footprinting Experiments", J. Goodisman and J.C. Dabrowiak, *Biochemistry*, **31**, 1058-64 (1992).
91. "Quantitative Footprinting Analysis of the Chromomycin A₃ - DNA Interaction", A. Stankus, J. Goodisman and J.C. Dabrowiak, *Biochemistry*, **31**, 9310-18 (1992).
92. "Neither Δ – nor Λ Tris(phenanthroline)ruthenium(II) Binds to DNA by Classical Intercalation", S. Satyanaryana, J.C. Dabrowiak and J.B. Chaires, *Biochemistry*, **31**, 9319-24 (1992).
93. "Tris(phenanthroline)ruthenium(II) Enantiomer Interactions with DNA: Mode and Specificity of Binding", S. Satyanarayana, J.C. Dabrowiak, and J.B. Chaires, *Biochemistry*, **32**, 2573-84 (1993).
94. "Cleavage of Tubulin by Vanadate Ion", J.J. Correia, L.D. Lipscomb, J.C. Dabrowiak, N. Isern and J. Zubieta *Arch. Biochem.*, **309**, 94-104 (1994).
95. "Quantitative Footprinting Analysis. A Mini Review", M. Shubsda, H. Kishikawa, J. Goodisman and J.C. Dabrowiak, *J. Mol. Recogn.* **7**, 133-39 (1994).
96. "Interaction of Cationic Porphyrins with DNA", V. Sehlstedt, S.K. Kim, P. Carter, J. Goodisman, J.F. Vollano, B. Norden and J. C. Dabrowiak, *Biochemistry*, **33**, 417-26 (1994).
97. "Synthesis and characterization of platinum (II)-thiolate complexes. Crystal and molecular structures of *cis*-Pt(Ph₃P)₂(SC₆H₂-2,4,6-iPr₃)Cl and *cis*-Pt(Ph₃P)₂(SC₆H₂-2,4,6-iPr₃)₂", Q. Chen, F. Boenheim, J. C. Dabrowiak and J. Zubieta, *Inorganica Chimica Acta*, **216**, 83-87 (1994).
98. "PCR Generation of Large Amounts of Purified DNA", L. Falzon, C. Kirk, J.B. Chaires and J. C. Dabrowiak, *Biochem. and Biophys. Methods*, **29**, 251-7 (1994).
99. "Chemically and Photochemically Initiated DNA Cleavage by an Insulin-Mimetic Bisperoxovanadium Complex", C. Hiort, J. Goodisman and J.C. Dabrowiak, *Molecular & Cellular Biochem.*, **153**, 31-6 (1995).

100. "Cleavage of DNA by the Insulin-Mimetic Compound, $\text{NH}_4[\text{VO}(\text{O}_2)_2(\text{phen})]$ ", C. Hiort, J. Goodisman, and J.C. Dabrowiak, *Biochemistry*, **35**, 12354-62 (1996).
101. "Quantitative DNA Footprinting", J.C. Dabrowiak, J. Goodisman, and B. Ward, in *Methods in Molecular Medicine*, Humana Inc., Totowa, NJ, 23-42 (1997).
102. "Kinetics of Cleavage of Intra- and Extracellular Simian Virus 40 DNA with the Eneidyne Anticancer Drug C-1027", C.A. Kirk, J. Goodisman, T.A. Beerman, L.A. Gawson, and J.C. Dabrowiak, *Biophysical Chem.*, **63**, 201-9 (1997).
103. "Quantitation of Ethidium-Stained Closed Circular DNA in Agarous Gels", M.F. Shubsda, J. Goodisman, and J.C. Dabrowiak, *J. Biochem. Biophys. Methods*, **34**, 73-9 (1997).
104. "Kinetics Analysis of Drug Cleavage of Closed-Circular DNA", J. Goodisman, C. Kirk, and J.C. Dabrowiak, *Biophys. Chem.*, **69**, 249-268 (1997).
105. "Characterization of Hairpin-duplex Inconversion of DNA Using Polyacrylamide Gel Electrophoresis", M. Shubsda, J. Goodisman and **J.C. Dabrowiak**, *Biophys. Chem.*, **76**, 95-115 (1999).
106. "Monomer-dimer equilibrium constants of RNA in the dimer initiation site of human immunodeficiency virus type-1", M.F. Shubsda, M.P. McPike, J. Goodisman and **J.C. Dabrowiak**, *Biochemistry*, **38**, 10147-57 (1999).
107. "A Molecular Modeling Program as a Teaching Tool for Structural Biochemistry", **J.C. Dabrowiak**, P.J. Hatala and M. McPike, *J. Chem. Edu.*, **77**, 397-400 (2000).
108. "Binding of Human Immunodeficiency Virus Type¹ Nucleocapsid Protein to Ψ -RNA-SL3", M.F. Shubsda, C.A. Kirk, J. Goodisman and **J.C. Dabrowiak**, *Biophysical Chem.*, **87**, 149-65 (2000).
109. "Drug RNA Footprinting", M.P. McPike, J. Goodisman and **J.C. Dabrowiak**, *Methods Enzymol.* **340**, 431-449 (2001).
110. "Absorption Studies on Aminoglycoside Binding to the Packaging Region of Human Immunodeficiency Virus Type-1", Sullivan, J.M., Goodisman, J., and **Dabrowiak, J.C.**, *Bioorg. Med. Chem. Lett.*, **12**, 615-618 (2002).
111. "Kinetics of Cisplatin Binding to Cellular DNA and Modulation by Thiol-Blocking Agents and Thiol Drugs" Sadowitz, P.D., Hubbard, B.A., Dabrowiak, J.C., Goodisman, J., Tacka, K.A., Aktas, M.K., Cunningham, M.J., Dubowy, R.L., and Souid, A.-K. *Drug Metab. Dispos.*, **30**, 183-90 (2002).
112. "Footprinting, Circular Dichroism and UV Melting Studies on Neomycin B Binding to the packaging region of Human Immunodeficiency Virus Type-1" McPike, M. P., Sullivan, J. M., Goodisman, J., and **Dabrowiak, J. C.** *Nucleic Acids Res.* **30**, 2825-31 (2002).
113. "Kinetic Analysis of the Reactions of 4-Hydroperoxycyclophosphamide and Acroline with Glutathione, Mesna, and WR-1065" Tacka, K. A., **Dabrowiak, J. C.**, Goodisman, J., and Souid, A. K. *Drug Metab. Dispos.* **30**, 875-82 (2002).

114. "Footprinting and Circular Dichroism Studies on Paromomycin Binding to the Packaging Region of Human Immunodeficiency Virus Type-1" McPike, M. P., Goodisman, J. and **Dabrowiak, J.C.** *Bioorg. Med. Chem.* **10**, 3663-3672 (2002).
115. "Kinetic Study of the Reaction of Cisplatin with Thiols" **Dabrowiak, J. C.**, Goodisman, J. and Souid, A. K. *Drug. Metab. Dispos.* **30**, 1378-1384 (2002).
116. "Kinetic Study on the Reaction of Cisplatin with Metallothionein" Hagrman, D., Goodisman, J., **Dabrowiak, J. C.** and Souid, A. K. *Drug Metab. Dispos.* **31**, 916-923 (2003).
117. "Specificity of neomycin analogs bound to the packaging region of human immunodeficiency virus type 1 RNA" McPike, M.p., Goodisman, J. and **Dabrowiak, J. C.** *Bioorg. Med. Chem.* **12**, 1835-1843 (2004).
118. "Effects of cisplatin on mitochondrial function in Jurkat cells" Tacka, K. A., **Dabrowiak, J. C.**, Goodisman, J., Penefsky, H. S., and Souid, A.-K. *Chem Res. Toxicol.* **17**, 1102-1111 (2004).
119. "Experimental and theoretical studies on the pharmacodynamics of cisplatin in Jurkat cells" Tacka, K. A., Szalda, D., Souid, A.-K., Goodisman, J., and **Dabrowiak, J. C.** *Chem Res. Toxicol.* **17**, 1434-44 (2004).
120. "Cisplatin carbonato complexes. Implications for uptake, antitumor properties and toxicity" Centerwall, C. R., Goodisman, J., Kerwood, D. J., **Dabrowiak, J. C.** *J. Am. Chem. Soc.* **127**, 12768-69 (2005).
121. "Formation of monofunctional cisplatin-DNA adducts in carbonate buffer" Binter, A., Goodisman, J. **Dabrowiak, J. C.** *J. Inorg. Biochem.* **100**, 1219-24 (2006).
122. "Activation of carboplatin by carbonate" Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B., Dubowy, R. L., **Dabrowiak, J. C.** *Chem. Res. Toxicol.* **19**, 139-49 (2006).
123. "Modification and uptake of a cisplatin carbonato complex by Jurkat cells" Centerwall, C. R., Tacka, K. A., Kerwood, D. J., Goodisman, J., Toms, B. B., Dubowy, R. L., **Dabrowiak, J. C.** *Mol. Pharmacol.* **70**, 348-55 (2006).
124. "Role of carbonate in the cytotoxicity of carboplatin" Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B. Dubowy, R. L., **Dabrowiak, J. C.** *Chem. Res. Toxicol.* **20**, 896-904 (2007).
125. "The activation of platinum (II) antiproliferative drugs in carbonate medium evaluated by means of a DNA-biosensor" Ravera, M., Bagni, G., Mascini, M., **Dabrowiak, J. C.**, Osella, D., *J. Inorg Biochem.* **101**, 1023-1027 (2007).
126. "Modification of carboplatin by Jurkat cells", Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B., **Dabrowiak, J. C.**, *J. Inorg. Biochem.*, **101**, 1438-1441 (2007).
127. "Cytotoxicity of mesoporous silica nanomaterials" Di Pasqua, A. J., Sharma, K. K., Shi, Y., Toms, B. B., Ouellette, W., **Dabrowiak, J. C.**, and Asefa, T., *J. Inorg. Biochem.*, **102**, 1416-23 (2008).

128. "New extracellular resistance mechanism for cisplatin", Centerwall, C. R., Kerwood, D. J., Goodisman, J. Toms, B. B., and **Dabrowiak, J. C.**, *J. Inorg. Biochem.*, **102**, 1044-9 (2008)
129. "Influence of carbonate on the binding of carboplatin to DNA", Sorokanich, R. S., Di Pasqua, A. J., Geier, M., **Dabrowiak, J.C.**, *Chem. Biodivers.*, **5**, 1540-44 (2008)
130. "Formation of Carbonato and Hydrogencarbonato Complexes in the Reaction of Platinum Anticancer Drugs with Carbonate" Di Pasqua, A. J., Centerwall, C. R., Kerwood, D. J., **Dabrowiak, J. C.** *Inorg. Chem.* **28**, 1192-7 (2009).
131. "Preparation of Antibody-Conjugated Gold Nanoparticles" Di Pasqua, A. J., Mishler, R. E., Ship, Y.-L., **Dabrowiak, J. C.**, Asefa, T. *Materials Lett.*, **63**, 1876-79 (2009)
132. "Adsorption of the Pt⁺² Anticancer Drug Carboplatin by Mesoporous Silica" Di Pasqua, A. J., Wallner, S., Kerwood, D. J., **Dabrowiak, J. C.** *Chem. Biodivers.*, **6**, 1343-49 (2009).
133. "Cytotoxicity of Cu(II) and Zn(II) 2,2'-Bipyridyl Complexes: Dependence of IC50 on Recovery Time". Shi, Y., Toms, B. B., Dixit, N., Kumari, N., Mishra, L., Goodisman, J., **Dabrowiak, J. C.** *Chem. Res. Toxicol.*, **2010**, *23*, 1417-26.
134. "DNA-capped nanoparticles designed for doxorubicin drug delivery" Alexander, C. M., Maye, M. M., **Dabrowiak, J. C.** *Chem. Commun.*, **2011**, *47*, 3418-20.
135. "Stability of carboplatin and oxaliplatin in their infusion solutions is due to self-association" Di Pasqua, A. J., Kerwood, D. J., Shi, Y., Goodisman, J., **Dabrowiak, J. C.** *Dalton Trans.* **2011**, *40*, 4821-25.
136. "Adamantane-platinum conjugate hosted in β -cyclodextrin: Enhancing transport and cytotoxicity by noncovalent modification". Prashar, D., Shi, Y., Bandyopadhyay, D., **Dabrowiak, J. C.**, Luk, Y.-Y. *Bioorg. Med. Chem. Lett.* **2011**, *21*, 7421-25.
137. "Pt(IV) complexes as prodrugs for cisplatin". Shi, Y., Lui, S.-A., Kerwood, D. J., Goodisman, J., **Dabrowiak, J. C.** *J. Inorg. Biochem.*, **2012**, *107*, 6-14.
138. "Understanding how the anticancer drug carboplatin works: From the bottle to the cell". Di Pasqua, A. J., Goodisman, J., **Dabrowiak, J. C.** *Inorg. Chim. Acta*, **2012**, *389*, 29-35.
139. "Enhanced detection of gold nanoparticles in agarose gel electrophoresis". Hasenoehrl, C., Alexander, C. M., Azzarelli, N. N., **Dabrowiak, J. C.** *Electrophoresis.*, **2012** *33*, 1251-54.
140. "Investigation of the drug binding properties and cytotoxicity of DNA capped nanoparticles designed as delivery vehicles for the anticancer agents doxorubicin and actinomycin D", Alexander, C. M., **Dabrowiak, J. C.**, Maye, M. M. *Bioconjugate Chem.* **2012**, *23*, 2061-70.
141. "Guest-host interactions involving platinum anticancer agents. DNA binding and cytotoxicity of a β -cyclodextrin-adamantane Pt(IV) complex". Shi, Y., **Dabrowiak, J. C.** *Inorg. Chim. Acta*, **2012**, *393*, 337-39.

142. "Metals in Medicine" **Dabrowiak, J. C.** *Inorg. Chim. Acta*, **2012**, 393, 1-2.
143. "Gravitational sedimentation of gold nanoparticles" Alexander, C. M., **Dabrowiak, J. C.**, Goodisman, J. *J. Coll. Interf. Sci.B.*, **2013**, 396, 53-62.
144. "Cyclodextrin Capped Gold Nanoparticles as a Delivery Vehicle for a Prodrug of Cisplatin". Shi, Y., Goodisman, J., **Dabrowiak, J. C.** *Inorganic Chemistry* **2013**, 52, 9418-9426.
145. "Multifunctional DNA-Gold Nanoparticles for Targeted Doxorubicin Delivery", Alexander, C., M., Hamner, K. L., Maye, M. M., Dabrowiak, J. C. *Bioconjugate Chem.*, **2014**, 25, 1261-71.

Lecture and Poster Presentations 1972-1999 (190- total):

Lecture and Poster Presentations (2000-Present)

191. "Monomer-Dimer Equilibria and Protein Binding to HIV-RNA", **J.C. Dabrowiak**, Department of Molecular Biology, University of Concepcion, Chile, March 2000, colloquium presentation.
192. "Interaction of NCp7 with HIV-psi-RNA-SL3 Studied by Gel Electrophoresis", K. A. Tacka, J. Goodisman and **J. C. Dabrowiak**, Retroviruses Conference, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, May 2000, poster presentation.
193. "Aminoglycoside Binding to the Packaging Region of HIV-1", M.P. McPike, J. Goodisman and **J.C. Dabrowiak**, 45th Annual Meeting of the Biophysical Society, Boston, MA, February 2001, poster presentation.
194. "Targeting the Packaging Region of HIV-1 with Drugs", M.P. McPike, J. Goodisman, C.H. Spink and **J.C. Dabrowiak**, 221st National Meeting of the American Chemical Society, San Diego, CA, April 2001, oral presentation.
195. "A Molecular Modeling Program for Teaching Structural Biochemistry", **J.C. Dabrowiak**, P.J. Hatala and M.P. McPike, 221st National Meeting of the American Chemical Society, San Diego, CA, April 2001, symposium speaker.
196. "Drug Binding to the Packaging Region of HIV-1", M.P. McPike, J. Goodisman and **J.C. Dabrowiak**, 12th Conversation in Biomolecular Stereodynamics, Albany, NY, June 2001, symposium presentation.
197. "Kinetics of Cisplatin Binding to DNA and Thiol Drugs", Sadowitz, P.D., Hubbard, B.A., **Dabrowiak, J.C.**, Goodisman, J., Tacka, K.A., Aktas. M.K., Cunningham, M.J., Dubowy, R.L. and Souid, A.-K., Conference on Biomolecular Stereodynamics, Albany, NY, 6/01, poster presentation.

198. "Biochemical Activity of the Anticancer Activity of Cisplatin", K. A. Tacka, **J. C. Dabrowiak**, J. Goodisman, H. S. Penefsky and A.-K. Souid, 9th International Symposium on Platinum Coordination Compounds in Cancer Chemotherapy, New York, NY October 2003.
199. "Experimental and theoretical studies on the pharmacodynamics of cisplatin in Jurkat cells" **Dabrowiak, J. C.**, Tacka, K. A., Goodisman, and Souid A.-K. 228th National American Chemical Society meeting, Philadelphia, PA, 8/04, Inviter Speaker.
200. "Cisplatin interacting with cells", **Dabrowiak, J. C.**, SUNY Oneonta, 3/03, Invited Seminar.
201. "Bioactivation of cisplatin and Carboplatin by carbonate", **Dabrowiak, J. C.**, Centerwall, C., Di Pasqua, A. D., Goodisman, J., Kerwood, D. J., Toms, B. B., Dubowy, R. L. Metals in Medicine Gordon Conference, Oxford, UK, 7/06.
202. "Role of carbonate in the mechanism of action of the platinum drugs" **Dabrowiak, J. C.**, Centerwall, C. E., Di Pasqua, J. J., Goodisman, Toms, B. B., Dubowy, R. L. 232nd National ACS meeting, San Francisco, CA, 9/06.
203. "Formation, properties and toxicity of carbonato carboplatin", Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B., Dubowy, R. L. and **Dabrowiak, J. C.** Presented at the MedTech Annual Meeting, Syracuse, NY, September 12, 2006.
204. "Role of carbonate in the mechanism of action of the platinum drugs" **Dabrowiak, J. C.**, Centerwall, C. R., Di Pasqua, A. J. Goodisman, J., Dubowy, R. L., Toms, B. B. 233rd National ACS meeting, Chicago, IL, 3/07
205. "Adsorption and controlled release of chemicals and drug molecules by functionalized mesoporous nanospheres", Asefa, T., Blair, E., Di Pasqua, A. J. and **Dabrowiak, J. C.** Presented at the 233rd ACS National Meeting, Chicago, ILL, March 25-29, 2007.
206. "Multifunctional mesoporous nanomaterials for drug delivery", Asefa, T., Blair, E., Di Pasqua, A. J., and **Dabrowiak, J. C.** Presented at the 233rd ACS National Meeting, Chicago, IL, March 25-29, 2007.
207. "Role of carbonate in the mechanism of action of the platinum drugs", **Dabrowiak, J. C.** Invited Seminar, SUNY Albany, 3/07
208. "Role of carbonate in the cytotoxicity of carboplatin", Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B., Dubowy, R. L. and **Dabrowiak, J. C.** Presented at the 31st Annual International Precious Metals Institute Conference, Miami, Fl, June 9-12, 2007.
209. "Importance of carbonate in the mechanism of action of the platinum drugs" **Dabrowiak, J.C.**, Di Pasqua, A. J., Centerwall, C. R., Goodisman, J., Invited, 13th International Conference on Biological Inorganic Chemistry, Vienna, Austria, 7/07
210. "Cytotoxicity of mesoporous silica nanomaterials", Di Pasqua, A. J., Sharma, K. K., Shi, Y., Toms, B. B., **Dabrowiak, J. C.** and Asefa, T. Presented at the 234th ACS National Meeting, Boston, MA, August 19-23, 2007.

211. "Importance of carbonate in the mechanism of action of carboplatin", Di Pasqua, A. J., Goodisman, J., Kerwood, D. J., Toms, B. B., Dubowy R. L. and **Dabrowiak, J. C.** Presented at the 234th ACS National Meeting, Boston, MA, August 19-23, 2007.
212. "Antibody-conjugated gold nanoparticles for use as sensors to detect pathogens in water", Di Pasqua, A. J., Shi, Y. L., **Dabrowiak, J. C.** and Asefa, T. Presented at the Syracuse Center of Excellence's 7th Annual Symposium on Environmental and Energy Systems, Syracuse, NY, August 19-23, 2007.
213. "Reaction of Carboplatin with carbonate" Di Pasqua, A. J. and **Dabrowiak, J. C.**, Metals in Medicine, Gordon Conference, Procter Academy, Andover, NH, poster, 6/29/08.
214. "Role of Carbonate in the Mechanism of Action of the Platinum Drugs" **Dabrowiak, J. C.**, Colloquium presentation, Department of Pharmaceutical Sciences, University of Toronto, Toronto, ON, 10/10/08.
215. "Metals in Medicine" Dabrowiak, J. C., Robert E. Harmon Lecture, Department of Chemistry, Western Michigan University, Kalamazoo, MI, 10/08/09.
216. "Role of Carbonate in The Mechanism of Action of Platinum Anticancer Agents" Robert E. Harmon Lecture, Department of Chemistry, Western Michigan University, Kalamazoo, MI, 10/09/09.
217. "Metals in Medicine" Colloquium presentation, Chemistry Department, Bloomsburg University Bloomsburg, PA, 3/19/10.
218. "Protein Modification for Enhanced Activities and Targeted Drug Delivery". Deepali Prashar, Dawei Cui, Yi Shi, Debjyoti Bandyopadhyay, **James C. Dabrowiak**, Yan-Yeung Luk, 240th National ACS Meeting, Boston, MA, Oral presentation, 9/10.
219. "Modifying Proteins with Kosmotropes for Enhanced Activities and Targeted Drug Delivery". Deepali Prashar, Dawei Cui, Yi Shi, Debjyoti Bandyopadhyay, **James C. Dabrowiak**, Yan-Yeung Luk, 240th National ACS Meeting, Boston, MA, Poster presentation, 9/10.
220. "Metals in Medicine", Colloquium presentation, Clarkson University, Potsdam, NY, 9/10/10.
221. "Metals in Medicine", Colloquium presentation, Wells College, Aurora, NY, 11/12/10.
222. "Interaction of Pt(IV) prodrugs of cisplatin with DNA". **Dabrowiak, J. C.**, Shi, Y., Lui, S.-A. Invited symposium speaker, CANBIC-3 (Bioinorganic chemistry conference), Parry Sound, ON, 06/01/11.,
223. "Developing modular surface chemistry approaches for biological and drug loading at nanoparticle interfaces". Maye, M. M.; Zylstra, J.; Han, H.; Alexander, C.; **Dabrowiak, J.**; Doyle, R.P., 85th ACS Colloid and Surface Science Symposium, Montreal, QC, Canada, June 19-22 (2011), COLLSYMP-10. Presentation by M. Maye.
224. "DNA-capped nanoparticles designed for doxorubicin drug delivery". Maye, M. M.; **Dabrowiak, J.C.**; Alexander, C.M., 242nd ACS National Meeting & Exposition, Denver, CO, United States, August 28-September 1, (2011), COLL-284. Presentation by M. Maye.

225. “Gold nanoparticle capped with modified β -cyclodextrins as a delivery vehicle for a prodrug of cisplatin” Shi, Y. and **Dabrowiak, J.C.** 243rd ACS National Meeting, San Diego, CA, March 25-29, 2012.
226. “DNA-capped gold nanoparticles as delivery vehicles for anticancer drugs, doxorubicin and actinomycin” Alexander, C. M. Maye, M. M., **Dabrowiak, J. C. D.** 244th ACS National Meeting & Exposition, Philadelphia, PA, United States, August 19-23, 2012, COLL-273.
227. “DNA-capped nanoparticles as encoded nanocarriers for intercalating chemotherapy drugs”. Maye, M. M., Alexander, C. M., **Dabrowiak, J. C.** 244th ACS National Meeting & Exposition, Philadelphia, PA, United States, August 19-23, 2012, COLL-193.
228. “Investigating the drug binding properties and cytotoxicity of DNA-capped nanoparticles designed as delivery vehicles for the anticancer agents doxorubicin and actinomycin D”. Alexander, Colleen M.; Dabrowiak, James C.; Maye, Mathew M. 246th ACS National Meeting & Exposition, Indianapolis, IN, United States, September 8-12, 2013 (2013).

Other Professional Recognition:

Honors/Awards: *American Cancer Society Scholar*, 1985.

Student Advisor Award, International Precious Metals Institute,
2012

Albert Award, BASF Corporation, 2014

Professional Service:

Department: Undergraduate Curriculum Committee, Chair (1993)
Nuclear Magnetic Resonance Committee, Member (1993-95)
Graduate Student Recruitment Committee, Member (1994-95)
Biochemistry Committee, Member (1996-present)
Multiple Faculty Search Committees
Search Committee Chair, Inorganic/Biomaterials (2006-7)
Search Committee Chair, Inorganic Chemistry (2009-10)
Graduate Admissions Committee, Member (2007-)
Faculty Mentor (2011)
Chemistry Library Committee (2011-)

College: Council for Undergraduate Studies, Member (1996)
Tenure Committee, Member (1981-1983)
Biophysics Program, Head (1993-95)
Biochemistry Major Advisor (1996-present)
Renee Crown Honors Program Thesis Evaluation Committee
Member (2009-)

University Radiation Safety Committee, Member (1988-present)
Chair (1999-2001)