
Peter Hans Bird

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Professional Experience

- Jun.2010 – present** **Professor, retired except Fall terms**
- Jan.2007 – May 2007** Acting Chair,
July 2004 – Dec.2004 Department of Chemistry and Biochemistry, Concordia University, Montreal
- 1991 – 1996** Vice-Dean, Research and Space
Faculty of Arts and Science, Concordia University. Montreal
- 1986 - 1992** Chair
Department of Chemistry and Biochemistry, Concordia University, Montreal
- 1981 – 2002** Fellow of Science College, Concordia University, Montreal
- 1983 – 2010** Professor
Department of Chemistry and Biochemistry, Concordia University, Montreal
- 1973 – 1983** Associate Professor
Department of Chemistry and Biochemistry, Concordia University, Montreal
- 1968-1973** Assistant Professor
Department of Chemistry and Biochemistry, Concordia University, Montreal
- 1966-1968** Postdoctoral Fellowship
Harvard University

Education

- 1966** Ph.D. Chemistry, Sheffield University, England.
- 1963** B.Sc. Honors, Chemistry, Sheffield University, England.

Service Activities

University Committee and Government Body Membership

2007-2010	Arts and Science Student Request Committee
2009-2010	IT Security Policy Committee
2003-2005	JEEC (Joint Employment Equity Committee)
2001-2002	Arts and Science Faculty Council Steering Committee (also in 97-98)
1998-2004	Centre for Mature Students
1999-2000	Faculty Personnel and Tenure Committee
2000	Dean's Committee on the Future of the Physics Department
1991-1997	Science Faculty Council (1997 - present, Science College Rep.)
1997-2000	University Research Awards Committee
1991-1997	Arts and Science Computer Resources Committee
1995-1997	Animal Care Committee
	Board of Graduate Studies Appraisals Subcommittees (4,2 as chair)
1991-1997	Central Advisory Committee for Health and Safety (91-97) (Co-Chair 95-97)
1996	Chinese Provincial Universities Development Project (CPUDP)
1995	Contract Research Policy Task Force
1995-1997	CUPFA Professional Development Fund Committee
1994	Dean's Task Force – Ecotoxicology (Chair)
1991-1992	Dean's Task Force – Physics (Chair)
1993	Dean's Working Group on Geology
1992-1995	Joint Grievance Committee
1997-1999	Senate Computer Resources Committee (87-89)
1981-1997	Senate Research Committee
1992-1993	Telephone Policy Task Force
1987-1991	University Budget Committee
1983–1997	University Inventions and Patents Committee – Dean's representative

Department Committee and Service

2012 (Fall)	Acting Undergraduate Program Director
1996-2010	Undergraduate Program Director, Department of Chemistry and Biochemistry
2000-2010	Associate Chair, Department of Chemistry and Biochemistry (unless Chair or Vice-Dean)
1996-2010	Curriculum Committee, Department of Chemistry and Biochemistry
2002-2010	Lab Co-ordinator for all sections of CHEM 205/206
2002-2010	Department Plagiarism Course Co-ordinator
2007-2010	Chair's Advisory Committee
2000-2010	Personnel Committee, Department of Chemistry and Biochemistry
2007-2010	Department Webmaster
2007-2010	Departmental Website Development Liaison with Academic Technology
2006-2010	Moodle Website Manager
1980-2010	Part-Time Hiring Committee, Department of Chemistry and Biochemistry
2002-2010	Graduate Thesis Committee member
2006-2010	Undergraduate Honors Thesis Committee Member
2007-2010	Budget Committee, Department of Chemistry and Biochemistry
2007-2010	Space Committee, Department of Chemistry and Biochemistry
2006-2008	Physical (Computational) Chemistry Search Committee (Chair in 2006-07)
2005-2006	Inorganic Chemistry Search Committee
2006-2008	CHEM 241 Coordinator of Teaching Assistant Activities
1981-1984	Graduate Program Director, Department of Chemistry and Biochemistry

Community Involvement

2005-2011 Concordia Open House
2011 Bell Regional Science Fair – Judge coordination
2010 Bell Regional Science Fair - Judge

Exterior Committees

1993-present DGEC - Comité de suivi et de coordination de l'expérimentation
 en Sciences de la Nature (1993 - present)
1991-1992 DGEC - Comité directeur de l'expérimentation en Sciences de la Nature (1991-92)
1985-1986 Comité d'évaluation, FCAR Bourses (1985-86)
1984-1986 Member-at-Large, Division of Inorganic Chemistry, C.I.C. (1984-86)
1984 Inorganic Program Organizer, C.I.C. Conference, Montreal (1984)
1981-1983 Comité d'évaluation, DGES - Bourses (1981-83)
1981-1982 Jury de Pairs, DGES - Coopération France/Québec (1981-82)
1981 Federation of Biological Societies Annual Lobby, Ottawa (1981)

Graduate Thesis Committees

Roger Bao Fei Zhang – M.Sc. – current
Diana Rodriguez-Burbabo – M.Sc. – transferred to Ph.D. Summer 2012
Francois David – M.Sc. – current
Francesca Mangiarini – Ph.D. – defended Spring 2012
Lei Zang – Ph.D. – withdrew Spring 2012
Xin Zhao – M.Sc. – defended Fall 2010
Dendi Susanto – M.Sc. – Thesis defended January 2009
Svetlana Popenova – M.Sc. – Thesis defended April 2009
Elham Ghobadi – Ph.D. – Thesis defended January 2008
Nabil Al Yassir – Ph.D. – Thesis defended December 2008
Kadyr Timergazine Ph.D. – Thesis defended February 2006
Denis Brion – Ph.D. Research Proposal Reader – April 2007
Christopher Boyer – Ph.D. – Degree conferred May 2007
Sacha Slatkova – M.Sc. – Degree conferred May 2007
Denise Koch – Thesis defended May 2006
Sean Hughes – Ph.D. – Degree conferred October 2006
Sheehab Hossain – Degree conferred April 2005
Tao Nhan Nguyen – Ph.D. – Degree conferred November 2005
Alvira Macanovic – Ph.D. – Degree conferred November 2004
Andrea Romeo – Ph.D. - Degree Conferred November 2004
Andrew Tait – Degree conferred November 2004
Limei Tao – Ph.D. – Degree Conferred November 2004
Fiorenzo Vetrone – Ph.D. - Degree conferred November 2004
Maria Dochia – M.Sc. – Degree conferred June 2003
Joseph Patapas – M.Sc. - Degree conferred June 2003
David Ohayon – Ph.D. - Degree conferred June 2002
Mohamed Ali Saberi – Ph.D. - Degree conferred November 2002
Tuan Si Le – Ph.D. - Degree conferred June 2001
Ernesto Moran – M.Sc. - Degree conferred June 2001
Christina Esposito – M.Sc. - Degree conferred June 2000
Sarah Anderson – M.Sc. - Degree conferred June 2001

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Dena Ghadiali – M.Sc.- Degree conferred November 2000

Shung Kei Lau – Ph.D. - withdrew

Undergraduate Thesis Committees

2011	Quing Yu
2010	Roger Bao Fei Zhang
2009	Mohammed Eskari
2007	Alka Patel
2006	Anna Bernardi Cedric Mawle
2000	Geneviève Huppé Rebekkah Carson Evguenie Chvedova Marie-Hélène Dufresne Vasiliki Bablekis Guillaume Liote Marc Poizat Daniel Tzoi
2001	Derold Collins Natalie Lambert Nicole Raymond Chris Boyer Maximilien Bogaert

Courses Taught and Developed

CHEM 205	General Chemistry I
CHEM 206	General Chemistry II
CHEM 241	Inorganic I (Bonding)
CHEM 242	Inorganic II (Main Group Elements)
CHEM 341	Inorganic III (Transitional Elements)
CHEM 498G/642	Organometallic Chemistry
CHEM 498I/695	X-ray Crystallography
CHEM 489Y/644	Homogeneous Catalysis

Peter H Bird

Publications, Patents, Thesis Supervision

*** Dr Bird was research active from 1969 until 1989*

Number of full papers:	35
Number of short communications:	35
Number of conference papers:	7
Number of patents:	1
Number of M.Sc. theses directed:	7
Number of Ph.D. theses directed:	5

Awards and Grants

- Essex County Major Award, Essex County Council, England
- Science Research Council Grant, Great Britain
- Fulbright-Hays Travel Grant, Committee on International Exchange of Persons, Conference Board of Associated Research Councils
- National Sciences and Engineering Research Council of Canada, NSERC, Operating Grants.

1969-70	\$ 4 950			1977-80	\$ 9 500	\$10 070	\$10 070
1970-71	\$ 5 500			1980-81	\$ 7 000		
1971-72	\$10 500			1981-82	\$10 000		
1972-73	\$ 8 500			1982-83	\$13 000		
1973-74	\$ 8 000			1983-86	\$19 438	\$20 410	\$20 410
1974-77	\$ 8 500	\$ 8 945	\$ 9 945	1986-89	\$19 593	\$19 593	\$19 593

- NSERC, Travel Grant (leave) 1977-78 \$914
- NSERC, Major Equipment, 1978-79 \$40 000
- Concordia University, CASA Seed Grant, 1981 \$1 500
- Concordia University, Funds or Scholarly Development 1997 \$2500
- DGES France/Québec Mission Hors Projet, 2 weeks, 1981
- Contract Research Income:

Ayerst Laboratories,	1968-1985	\$7 200
Esso Research and Engineering,	1972	\$1 500
Institut de Recherche et de Développement sur l'Amiante, 1982-84 (With R. Le Van Mao)		\$116 184
- Team Grants:

FCAC (P.I. - N. Serpone)	1980-81	\$5 500
FCAC (P.I. - N. Serpone)	1981-82	\$10 350
FCAC (P.I. - I. Butler, McGill)	1981-82	\$46 900
FCAC Action Spontanée (P. Bird)	1983-84	\$20 400
FCAC Action Spontanée (P. Bird)	1984-85	\$13 800
FCAC Action Spontanée (P. Bird)	1985-86	\$8 400
FCAR Action Structurante (P.I. - C. Langford)	1985-90	\$1 280 000
- Faculty of Arts and Science General Research Fund 2008-09 \$2.00

Professional Memberships

The Chemical Society
The American Chemical Society
The Chemical Institute of Canada
L'Ordre des Chemistes du Québec

Publications

(C = Communication or Note; P = Full Paper)

- P72 P.H.Bird, X. Li and J.A. Osborn, "The Preparation and Redox Properties of Compounds with Hydrazido(2-) and Imido Ligands Bound to the Mo(dtd) Group (dtd = 2,3;8,9 dibenzo-1,4,7,10-tetrathiadecane-2)) and the Crystal Structure of Mo(dtd)Cl(NNPh₂)". In preparation.
- C71 Hocine Merazig, Fatima Setifi, Zouaoui Setifi, Peter H. Bird, Georges Dénès and Korzior Tam, 2005, K₃Sn₅Cl₃F₁₀ with a corrugated layered structure" *Acta Cryst.*, E61, i120 - i122
- P70 Laurence K. Thompson, Virginie Niel, Hilde Grove, David O. Miller, Michael Newlands, Peter H. Bird, Wasantha A. Wickramasinghe, A.B.P. Lever, 2004, "Cobalt and nickel complexes of a tetradentate phthalazine ligand – mononuclear, dinuclear and trinuclear derivatives" *Polyhedron* 23, 1175 - 1184.
- C69. A. Shaver, J.M. McCall, P.H. Bird and U. Siriwardane, 1991, "The Structure of a Complex Containing a Chelating S₃²⁻ Ligand: [(C₅Me₅)₂TiS₃]" *Acta Cryst.*, C47, 659.
- P68. C. Moralejo, C.H. Langford, and P.H. Bird, 1991, "The Crystal Structure of W(CO)₅piperidine: Implications for Photoreactivity of W(CO)₅L Complexes" *Can. J. Chem.*, 69, 2033.
- P67. A. Shaver, B. Soo Lum, P. Bird, E. Livingstone, and M. Schweitzer, 1990, "Preparation and Crystal Structure of Bis(cyclopentadienyl)tetracarbonylbis(μ-2-propanethiolato)ditungsten(II), [CpW(CO)₂(μ-SCHMe₂)₂]₂, and Bis(cyclopentadienyl)dicarbonylbis(μ-2-propanethiolato)ditungsten(II), [CpW(CO)(μ-SCHMe₂)₂]₂." *Inorg. Chem.* 29, 1832.
- P66. A. Shaver, P-Y. Plouffe, P. Bird, and E. Livingstone, 1990, "Preparation of (η-C₅H₅)Ru(PPh₃)(L)SR (R = 1-C₃H₇, CHMe₂, 4-C₆H₄Me; L = PPh₃, CO) and Insertion of CS₂ into the Ru-SR Bond to Give the Thioxanthates (η-C₅H₅)Ru(PPh₃)S₂CSR (R = 1-C₃H₇, CHMe₂, 4-C₆H₄Me). Crystal Structure of (η-C₅H₅)Ru(PPh₃)S₂CS-1-C₃H₇." *Inorg. Chem.*, 29, 1827.
- C65. C. Kazakoff, P.H. Bird, and R.T.Rye, 1989, "Production of X-rays in a Fast-Atom Bombardment Source." *Org. Mass. Spec.* 24, 703.
- P64. A. Shaver, B. Soolum, P.Bird, and K. Arnold, 1988, "The Preparation of (η-C₅H₅)W(CO)₂(PPh₃)SR and the Insertion of CS₂ to give the Thioxanthates (η-C₅H₅)W(CO)₂S₂CSR where R = CHMe₂, CH₂Ph, and 4-C₆H₄Me. The Crystal Structure of (η-C₅H₅)W(CO)₂S₂CSCH₂Ph" Submitted to *Inorg. Chem.* Sept. 1988.
- P62. J.A. Osborn, G.G. Stanley, P.H.Bird, 1986, "A Nickel(0) Dimer/Monomer System with Facile and Reversible Carbon Monoxide Uptake: Ni₂(CO)_x(dppm)₂ (x=3,4) and Ni(CO)₃(η¹-dppm)", *J. Amer. Chem. Soc.*, 110, 2117.

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- P61. L.G. Humber, C.A. Demerson, P. Swaminathan, and P.H. Bird, 1986, "Etodolac (1,8-Diethyl-1,3,4,9-tetrahydropyrano[3,4-b]indole-1-acetic Acid): A Potent Antiinflammatory Drug. Conformation and Absolute Configuration of its Active Enantiomer", *J. Med. Chem.*, 29, 871-874.
- P60. A. Shaver, R.D. Lai, P.H. Bird, and W.A. Wickramasinghe, 1985, "The Preparation and Structure of Methanedithiolatobis(dimethylphenylphosphine)-platinum, $(PMe_2Ph)_2Pt(S_2CH_2)$ ", *Can. J. Chem.*, 63, (9), 2555.
- P59. R. Le Van Mao, P. Levesque, B. Sjiariel, and P.H. Bird, 1985, "Composite ZSM-5/Asbestos Catalysts", *Can. J. Chem.*, 63, (12), 3464-3470.
- P58. P.H. Bird, A. Ismail, and I.A. Butler, 1985, "Arene Activation in Chromium Chalcocarbonyl Complexes. I. Crystal and Molecular Structure of $Cr(CO)_2(CS)[(CH_3O)_3P]_3$ ", *Inorg. Chem.*, 24, (19), 2911-2914.
- C57. P. Chandrasekhar and P.H. Bird, 1985, "Synthesis and Characterization of $[V(NCCH_3)_6ZnCl_4]$, a Low Valence Vanadium Complex", *Inorg. Chim. Acta*, 97, (2), L31-L33.
- C56. P. Chandrasekhar and P.H. Bird, 1985, "Synthesis and Characterization of an Oxygen-Bridged Vanadium(III) Dimer", *Inorg. Chem.*, 23, (22), 3677-3679.
- C55. A.A. Bahsoun, J.A. Osborn, P.H. Bird, D. Nucciarone, and A.V. Peters, 1984, "Heterobimetallic Synthesis Using the Tripod Ligand, Tris(diphenylphosphino)methane: The X-Ray Structure of $[(CO)_5FeRh(tripod)]^+$ ", *J. Chem. Soc., Chem. Commun.*, 1984, (2), 72-73.
- P54. A.A. Bahsoun, J.A. Osborn, J.P. Kintzinger, P.H. Bird, and U. Siriwardane, 1984, "Synthesis, Molecular Structure and Dynamic Behavior of the Chiral Ruthenium Cluster $(\mu-H)_4Ru_4(CO)_9[HC(PPh_2)_3]$ ", *Nouv. J. Chim.*, 8, (2), 125-132.
- C53. G. Just, P. Potvin, P. Uggowitz, and P.H. Bird, 1983, "Configuration at the 2-Position of Oxazolidines Derived from l-Ephedrine and p-Bromobenzaldehyde. An X-Ray Structure Redetermination", *J. Org. Chem.* 48, 2923-2924.
- C52. A. Shaver, J.M. McCall, P.H. Bird, and N.B. Ansari, 1983, "Preparation and Structure of $(\eta-C_5H_5)_2Ti(SPh)(SSSPh)$: The Product of a Sulphur Catenation Reaction", *Organometallics*, 2, (12), 1894-1896.
- C51. R. Hoffmann, T. Hughbanks, M. Kertesz, and P.H. Bird, 1983, "A Hypothetical Metallic Allotrope of Carbon", *J. Am. Chem. Soc.*, 105, (14), 4831-4832.
- C50. A. Shaver, J. Hartgerink, R.D. Lai, P.H. Bird, and N.B. Ansari, 1983, "Catenated Sulphur Ligands: the Synthesis of Metal Disulphanes and the Structures of $Cis-(PPh_3)_2Pt(L)SSCHMe_2$ (L = phthalimido) and $(\eta^5-C_5H_5)W(CO)_3SSC_6H_4Me-p$ ", *Organometallics*, 2, (7), 938-940.
- P49. P.H. Bird, U. Siriwardane, R.D. Lai, and A. Shaver, 1982, "The Preparation of Thiolato Bridged Platinum Dimers: the Crystal and Molecular Structure of $Cis-\mu\mu'$ -bis(phenylmethanethiolato)bis[(phenylmethanethiolato)-(methyl)diphenylphosphine)platinum(II)], $Cis-PMePh_2Pt(SCH_2Ph)-(\mu-SCH_2Ph)_2$ ", *Can. J. Chem.*, 60, (16), 2075-2081.
- P48. M.A. Kadim, V. Kumar, P.H. Bird, B.C. Pant, and L.D. Colebrook, 1982, "A Carbon-13 and Proton NMR Study of Some Aryltellurium Tris(diethyldithiocarbamates)", *Org. Magn. Reson.*, 19, (4), 185-187.

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- C47. P.H. Bird, J.M. McCall, A. Shaver, and U. Siriwardane, 1982, "Metallocyclo sulphides: Synthesis of Bis(pentamethylcyclopentadienyl)titanium(IV)cyclotetrasulphide", *Angew. Chem. Int. Ed. Engl.*, 21, (5), 384-385.
- P46. W.A. Wickramasinghe, P.H. Bird, and N. Serpone, 1982, "Interligand Pockets in Polypyridyl Complexes. Crystal and Molecular Structure of the Bis(terpyridyl)chromium(III)Cation", *Inorg. Chem.*, 21, (7), 2694-2698.
- C45. W.A. Wickramasinghe, P.H. Bird, M.A. Jamieson, N. Serpone, and M. Maestri, 1982, "Characterization of the Chromium(III) Product from the Reaction Between Chromium Dichloride and 2,2'-Bipyridine under Slow Oxidation", *Inorg. Chim. Acta*, 64, (2), L85-L86.
- C44. W.A. Wickramasinghe, P.H. Bird, and N. Serpone, 1981, "Nature of the Tris(2,2'-bipyridyl)iridium Hydrate Bipyridine Ligand? X-ray Crystal Structure of the Perchlorate Salt", *J. Chem. Soc., Chem. Commun.*, 1981, (24), 1284-1286.
- C43. P.H. Bird, U. Siriwardane, A. Shaver, O. Lopez, and D.N. Harpp, 1981, "An Unusual Bonding Mode for a Dithiocarboxylate Ligand: A Tetradentate Interaction: X-Ray Crystal Structure of the Product of the Reaction of Nonacarbonyldiiron with 1,2-Benzodithiole-3-thione", *J. Chem. Soc., Chem. Commun.*, 1981, (11), 513-514.
- P42. P.H. Bird and W.A. Wickramasinghe, 1981, "The Crystal and Molecular Structure of 1,4-bis(1-oxa-4,10-dithia-7H-7-azoniacyclododecan-7-ylmethyl)benzene tetrachlorooxotetrahydrofuran Molybdate(V)", *Can. J. Chem.*, 59, (19), 2879-2882.
- C41. R.H. Burnell, A. Chapelle and P.H. Bird, 1981, "S(+)-Magnoflorine Bromide: Isolated from *Croton Turumiquirensis* Stayerm", *J. Nat. Prod.*, 44, (2), 238.
- P40. S.A. Bezman, P.H. Bird, A.R. Frazer and J.A. Osborn, 1980, "Metallacyclic Complexes of Iridium", *Inorg. Chem.*, 19, (12), 3755-3763.
- P39. P.H. Bird, V. Kumar and B.C. Pant, 1980, "Crystal and Molecular Structures of the (4-alkoxyphenyl)tellurium (IV) Trihalides: (4-EtOPh)TeCl₃, (4-EtOPh)TeBr₃, and (4-MeOPh)TeI₃", *Inorg. Chem.*, 19, (9), 2487-2493.
- C38. W.A. Wickramasinghe, P.H. Bird, M.A. Jamieson and N. Serpone, 1979, "Interligand Pockets in Polypyridyl Complexes. Crystal and Molecular Structure of the Chromium(2,2',2"-terpyrine)₂³⁺ Ion", *J. Chem. Soc., Chem. Commun.*, 1979, (18), 798-800.
- P37. V. Kumar, P.H. Bird and B.C. Pant, 1979, "Preparation of Unsymmetrical Diorganotellurium Dichlorides Using Organolead Compounds", *Synth. React. Inorg. Met. Org. Chem.*, 9, (3), 203-212.
- P36. N. Serpone, P.H. Bird, A. Somogyvari and D.G. Bickley, 1977, "Five Coordinate Titanium(IV) Complexes. Infrared Spectral Studies on X₃Ti(diketonato) and XY₂Ti(diketonato) Complexes and the Crystal and Molecular Structure of Di-μ-chloro-tetrachlorobis(2,4-pentanedionato)titanium(IV)", *Inorg. Chem.*, 16, (9), 2381-2386.
- P35. P.H. Bird, A.R. Fraser and D.N. Hall, 1977, "Reactions of μ-diphenyl-ethyne-hexacarbonyldicobalt with Bis(diphenylphosphino)methane. Crystal Structures of μ-bis(diphenylphosphino)methane-μ-tolan-tetracarbonyldicobalt and Di-μ-bis(diphenylarsino)methane-μ-tolan-dicarbonyldicobaltdichloromethane", *Inorg. Chem.*, 16, (8), 1923-1931.

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- P34. P.H. Bird, F.T. Bruderlein and L.G. Humber, 1976, "Crystallographic Studies on Neuroleptics of the Benzocycloheptapyridoisoquinoline Series. The Crystal Structure of Butaclamol Hydrobromide and the Absolute Configuration of Dexclamol Hydrobromide", *Can. J. Chem.*, **54**, (17), 2715-2722.
- C33. N. Serpone and P.H. Bird, 1975, "Novel Dimer of Pentane-2,4-dione. The Crystal and Molecular Structure of the Cation (C₁₀H₁₃O₂)⁺", *J. Chem. Soc., Chem. Commun.*, **1975**, (8), 284-285.
- C32. P.H. Bird, L.D. Colebrook, A.R. Fraser and H.G. Giles, 1974, "Conformational Preferences in Aryl Substituted Heterocyclic Compounds Exhibiting Restricted Internal Rotation about Carbon-Nitrogen Bonds", *J. Chem. Soc., Chem. Commun.*, **1974**, (6), 225-226.
- P31. P.H. Bird and A.R. Fraser, 1974, "The Crystal and Molecular Structures of π -Arene Complexes of the Ennecarbonyltetracobalt Cluster with o- and m-Xylene (a Mixed Crystal) and with Benzene", *J. Organometal. Chem.*, **73**, (1), 103-114.
- P30. P.H. Bird, N.J. Coville, I.S. Butler and M.L. Schneider, 1973, "Crystal and Molecular Structure of Two Isomeric Tri(tertiaryphosphine) Complexes of Manganese(I) and Chromium(0)", *Inorg. Chem.*, **12**, (12), 2902-2908.
- P29. P.H. Bird, A.R. Fraser and C.-F. Lau, 1973, "Crystal Structures of Bis(2,4-pentanedionato)bis(2,6-diisopropylphenoxo)titanium(IV), bis(8-quinolinato)bis(2,6-diisopropylphenoxo)titanium(IV), and bis(2-methyl-8-quinolinato)bis(2,6-diisopropylphenoxo)titanium(IV)", *Inorg. Chem.*, **12**, (6), 1322-1328.
- C28. M.B. Dines and P.H. Bird, 1973, "Aromatic Complexes of Copper(I) Trifluoromethanesulphonate", *J. Chem. Soc., Chem. Commun.*, **1973**, (1), 12.
- C27. A.R. Fraser, P.H. Bird, S.A. Bezman, J.R. Shapley, R. White and J.A. Osborn, 1973, "Metal Catalysed [2+2] Cycloaddition Reactions. A Metallocyclic Intermediate", *J. Amer. Chem. Soc.*, **95**, (2), 597-598.
- P26. A.D. Adley, P.H. Bird, A.R. Fraser and M. Onyszchuk, 1972, "The Crystal Structures of 2,2'-bipyridyltetrafluorosilicon(IV), 2,2'-bipyridyltetrafluorogermanium(IV), and 2,2'-bipyridyltetrafluorotin(IV)", *Inorg. Chem.*, **11**, (6), 1402-1409.
- C25. N. Serpone, P.H. Bird, D.G. Bickley and D.W. Thompson, 1972, "Five Coordinate Titanium Complexes. The Crystal and Molecular Structure of (Acetylacetonato)trichlorotitanium(IV)", *J. Chem. Soc., Chem. Commun.*, **1972**, (4), 217-218.
- P24. N.A. Bailey, P.H. Bird, N. Davies and M.G.H. Wallbridge, 1970, "Proton Exchange Processes in Some Metal Tetrahydroborate Systems", *J. Inorg. Nucl. Chem.*, **32**, (9), 3116-3118.
- C23. R.H. Burnell, A. Chapelle, M.F. Khalil and P.H. Bird, 1970, "Hunteracine: the Structure of a Quaternary Alkaloid from *Hunteria eburnea*", *J. Chem. Soc. D*, **1970**, (12), 772-773.
- C22. P.H. Bird and A.R. Fraser, 1970, "Preparation and Crystal Structure of Tris(hexacarbonyldicobalt- π -ethynyl)arsine: [(CO)₆Co₂C₂H]₃As", *J. Chem. Soc. D*, **1970**, (11), 681-682.
- P21. M.R. Churchill and P.H. Bird, 1969, "The Molecular Structure of Diazulenetetrairon Decacarbonyl in Crystalline (C₁₀H₈)₂Fe₄(CO)₁₀·C₂H₄Cl₂", *Inorg. Chem.*, **8**, (9), 1941-1949.
- P20. M.R. Churchill, K. Gold and P.H. Bird, 1969, "The Preparation and Crystallographic Determination of Stereochemistry for the Monoclinic and Triclinic Modifications of

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- 4,6,8-trimethylazulenetetraruthenium Enneacarbonyl, $[(\text{CH}_3)_3\text{C}_{10}\text{H}_5]\text{Ru}_4(\text{CO})_9$ ", Inorg. Chem., 8, (9), 1956-1969.
- C19. M.R. Churchill, P.H. Bird, H. Kaesz and R. Bau, 1968, "Characterization of a Anionic Rhenium Carbonyl Hydride, $[\text{H}_2\text{Re}_3(\text{CO})_{12}]^-$ ", J. Amer. Chem. Soc., 90, (25), 7135-7136.
- C18. P.H. Bird and M.G.H. Wallbridge, 1968, "The Preparation of Metal Carbonyl-Borane and Polyborane Species", Chem. Commun., 1968, (12), 687.
- P17. N. Davies, P.H. Bird and M.G.H. Wallbridge, 1968, "Spectroscopic Studies on Derivatives of Aluminum Borohydride", J. Chem. Soc., A, 1968, (9), 2269-2272.
- P16. M.R. Churchill and P.H. Bird, 1968, "The Characterization and Crystallography of Trans-Azulenemanganese Hexacarbonyl", Inorg. Chem., 7, (9), 1793-1801.
- C15. M.R. Churchill and P.H. Bird, 1968, "Characterization and Molecular Configuration of Diazulenetetrairon Decacarbonyl", J. Amer. Chem. Soc., 90, (12), 3241-3242.
- P14. N.A. Bailey, P.H. Bird and M.G.H. Wallbridge, 1968, "The Crystal Structure of Aluminum Tetrahydroborate-trimethylamine at 25 and -160 °C", Inorg. Chem., 7, (8), 1575-1581.
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