

## **Supplementary Material**

### **Raymond Leslie Martin 1926–2020**

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## Supporting Information

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Academic Degrees		Scholarships and Awards		Career Positions	
1946	BSc, University of Melbourne	1946 1948 1948	Cuming Scholarship Dixson Scholarship Kernot Scholarship	1951–54	Senior University Scholar and Residential Fellow at the Sidney Sussex College, Cambridge, UK
1948	MSc, University of Melbourne	1949–51	1851 Exhibition Science Research Award†	1953–54	Visiting Scientist at Technische Hochschule, Stuttgart, Germany
1952	PhD, University of Cambridge, UK	1952–54	1851 Senior Exhibition Science Research Award	1954–59	Senior Lecturer in Inorganic Chemistry at the University of Technology Sydney (now Uni. New South Wales)
1968	Doctor of Science (ScD) by University of Cambridge	<1961	Fellow, Royal Australian Chemical Institute (RACI)	1959–62	Section Leader of the Inorganic Physical Chemistry Group (1959) and Associate Research Manager (1960), Central Research Laboratories, Imperial Chemical Industries of Australia and New Zealand (ICIANZ), Melbourne
1977	Doctor of Science (DSc) by Australian National University	~1960	Fellow, Royal Society of Chemistry (RSC)	1962–72	Professor of Inorganic Chemistry, Dean of Faculty of Science (1971) at the University of Melbourne
1992	Doctor of Laws (LLD) ( <i>Honoris causa</i> ) Monash University	1968	H.G. Smith Medal, Royal Australian Chemical Institute	1967–68	Visiting Professor, Bell Telephone Research Laboratories, New Jersey, USA

1996	Doctor of Science (DSc) ( <i>Honoris causa</i> ) University of Melbourne	1971	Fellow, Australian Academy of Science (FAA)	1968–69	Federal President, Royal Australian Chemical Institute (RACI)
		1974	Ollie Prize, Royal Australian Chemical Institute	1972–77	Inaugural Professor of Inorganic Chemistry and Dean (1976–77), Institute of Advanced Studies, Research School of Chemistry, Australian National University
		1976	Archibald Liversidge Medal, Royal Society of New South Wales	1972	Visiting Professor, Columbia University, New York, USA
		1977	Professor Emeritus, Australian National University	1977–92	Vice Chancellor (1977–87) and Professor of Chemistry (1987–92), Monash University
		1978	Inorganic Chemistry Medal, Royal Australian Chemical Institute	1983–84	Chairman, Victorian Vice-Chancellors Committee
		1979	Fellow of Queen's College, University of Melbourne	1983–87	Chairman, International Commission on Atomic Weights and Isotopic Abundances (IUPAC)
		1987	Officer of the Order of Australia (AO)	1984–2006	Director of the Victorian Regional Committee (1984–92), Deputy National Chair (1988–94), National Chair (1995–99), Fellowship Director (2000), and National President (2001–05), Winston Churchill Memorial Trust
		1989	Leighton Memorial Medal, Royal Australian Chemical Institute	1984–95	Member of Council (1984–95), Deputy President (1991), President (1992–95),

					Victorian College of the Arts (University of Melbourne)
		1989	Fellow, Australian Academy of Technological Sciences and Engineering (FTSE)	1986–2002	Director of Circadian Technologies Ltd.
		1992	Professor Emeritus, Monash University	1988–92	Chair of the Australian Science and Technology Council (ASTEC)
				1988–92	Board member, Heide Park and Art Gallery
				1997–2002	Chairman, Optiscan Imaging Ltd.
				1989–92	Member of the Prime Minister's Science Council
				1992–2000	(1990–95) Trustee; (1995–2000) National Chairman, Selby Scientific Foundation

† Ray and his father, L.H. Martin, are reported to be the only father and son to both be awarded an 1851 Exhibition Science Research Scholarship.

## Bibliography

- Martin, R. L., Oxides of Praeseodymium. *Nature* **1950**, *165* (4188), 202-203.
- Greenwood, N. N.; Martin, R. L.; Emeleus, H. J., The Electrochemistry of Boron Trifluoride Coordination Compounds. Part I. Boron Trifluoride Ethyl Ether. *Journal of the Chemical Society* **1950**, (NOV), 3030-3036.
- Greenwood, N. N.; Martin, R. L., Discontinuities in Supercooled Ionic Melts. *Nature* **1951**, *168* (4269), 344-344.
- Greenwood, N. N.; Martin, R. L.; Emeleus, H. J., The electrochemistry of boron trifluoride co-ordination compounds. Part II. Boron Trifluoride Mono(acetic acid) *Journal of the Chemical Society* **1951**, (MAY), 1328-1332.
- Greenwood, N. N.; Martin, R. L., The electrochemistry of boron trifluoride co-ordination compounds. Part III. Boron Trifluoride Mono(acetic acid). *Journal of the Chemical Society* **1951**, (JUL), 1795-1798.
- Martin, R. L. The Coordination Compounds of Boron Trifluoride. University of Cambridge, 1951.
- Greenwood, N. N.; Martin, R. L., Discontinuities in the Physical Properties of Supercooled Liquids. *Proceedings of the Royal Society of London Series A-Mathematical and Physical Sciences* **1952**, *215* (1120), 46-65.
- Greenwood, N. N.; Martin, R. L., The electrochemistry of boron trifluoride co-ordination compounds. Part V. Boron Trifluoride normal-alkyl acetates. *Journal of the Chemical Society* **1953**, (MAR), 751-757.
- Greenwood, N. N.; Martin, R. L., The electrochemistry of boron trifluoride co-ordination compounds. Part VI. The system boron trifluoride-methanol. *Journal of the Chemical Society* **1953**, (MAR), 757-764.
- Greenwood, N. N.; Martin, R. L., The electrochemistry of boron trifluoride co-ordination compounds. Part VII. Degrees of ionic dissociation in the molten state. *Journal of the Chemical Society* **1953**, (MAY), 1427-1432.
- Greenwood, N. N.; Martin, R. L., The molar volume of co-ordinated boron trifluoride. *Journal of the Chemical Society* **1953**, (DEC), 4132-4134.
- Greenwood, N. N.; Martin, R. L., Boron trifluoride co-ordination compounds. *Quarterly Reviews* **1954**, *8* (1), 1-39.
- Martin, R. L., The Activation Energy of Electrical Conductivity in Fused Electrolytes. *Journal of the Chemical Society* **1954**, (SEP), 3246-3247.
- Figgis, B. N.; Martin, R. L., Magnetic studies with copper(II) salts. Part I. Anomalous paramagnetism and  $\delta$ -bonding in anhydrous and hydrated copper(II) acetates. *Journal of the Chemical Society* **1956**, 3837-3846.
- Martin, R. L.; Waterman, H., Magnetic studies with copper(II) salts. Part II. Anomalous paramagnetism and  $\delta$ -bonding in anhydrous and hydrated copper(II) n-alkanoates. *Journal of the Chemical Society* **1957**, 2545-2551.
- Harris, C. M.; Lenzer, S. L.; Martin, R. L., The occurrence of paramagnetic and diamagnetic isomers of bis(N-methylsalicylaldehyde)nickel(II). *Australian Journal of Chemistry* **1958**, *11* (3), 331-335.
- Harris, C. M.; Martin, R. L., A diamagnetic binuclear compound of bivalent copper. *Proceedings of the Chemical Society* **1958**, (SEPTEMBER), 259.
- Martin, R. L.; Whitley, A., Magnetic studies with copper(II) salts. Part III. The constitution of copper(II) n-alkanoates in solution. *Journal of the Chemical Society* **1958**, (APR), 1394-1402.

Harris, C. M.; Hoskins, B. F.; Martin, R. L., The nature of the metal complexes of 1,3-diphenyltriazene. *Journal of the Chemical Society* **1959**, 3728-3736.

Martin, R. L.; Waterman, H., Magnetic studies with copper(II) salts. Part IV. Remarkable magnetic behaviour of copper(II) formate and its hydrates. *Journal of the Chemical Society* **1959**, (APR), 1359-1370.

Martin, R. L.; Waterman, H., Magnetic studies with copper(II) salts. Part V. Binuclear derivatives of copper(II) formate involving covalent copper-to-copper  $\delta$ -bonds. *Journal of the Chemical Society* **1959**, (SEP-O), 2960-2968.

Martin, R. L.; Winter, G., Structure of the trinuclear titanium (IV) alkoxides. *Nature* **1960**, *188* (4747), 313-315.

Harris, C. M.; Lenzer, S. L.; Martin, R. L., A chemical and magnetic study of some bivalent nickel complexes. *Australian Journal of Chemistry* **1961**, *14* (3), 420-435.

Martin, R. L.; Winter, G., Structures of polymeric titanium ethoxide and titanium oxide ethoxides. *Nature* **1961**, *191* (4785), 274-275.

Martin, R. L.; Winter, G., The association of n-tetra-alkoxy- and n-alkoxy-chloroderivatives of titanium. *Journal of the Chemical Society* **1961**, 2947-2957.

Martin, R. L.; Winter, G., Association of titanium (IV) alkoxides in benzene. *Nature* **1963**, *197* (4868), 687.

Barracough, C. G.; Martin, R. L.; Winter, G., Dioxan-induced association of n-alkyl titanates. *Journal of the Chemical Society* **1964**, 755-762.

Ewald, A. H.; Ross, I. G.; White, A. H.; Martin, R. L., Anomalous Behaviour at  ${}^6A_1$ - ${}^2T_2$  Crossover in Iron(III) Complexes. *Proceedings of the Royal Society of London. Series A: Mathematical and Physical Sciences* **1964**, *280* (1380), 235-257.

Kokot, E.; Martin, R. L., Magnetic Studies with Copper(II) Salts. Part VI. Variable Singlet-Triplet Energies in Amine-Substituted Copper(II) Alkanoates. *Inorganic Chemistry* **1964**, *3* (9), 1306-1312.

White, A. H.; Roper, R.; Kokot, E.; Waterman, H.; Martin, R. L., The anomalous paramagnetism of iron(III) NN-dialkyldithiocarbamates. *Australian Journal of Chemistry* **1964**, *17* (3), 294-303.

Colton, R.; Martin, R. L., Magnetic evidence for trinuclear clusters in rhenium(IV) chloride. *Nature* **1965**, *205* (4968), 239-240.

Colton, R.; Martin, R. L., Magnetic and spectral evidence for trinuclear clusters in molybdenum chlorides. *Nature* **1965**, *207* (4993), 141-142.

Kokot, E.; Martin, R. L., Magnetic properties of anhydrous copper(II) nitrate. *Chemical Communications (London)* **1965**, (10), 187.

Martin, R. L.; Winter, G., The metal-metal bond in binuclear di- $\pi$ -cyclopentadienyltitanium(III) chloride. *Journal of the Chemical Society* **1965**, 4709-4714.

Adams, R. W.; Bishop, E.; Martin, R. L.; Winter, G., Magnetism, Electronic Spectra, and Structure of Transition Metal Alkoxides. Part I. Methoxides and Ethoxides of Chromium(II), Manganese(II), Iron(II), Cobalt(II), Nickel(II), Copper(II), Titanium(III), Chromium(III), and Iron(III). *Australian Journal of Chemistry* **1966**, *19* (2), 207-210.

Adams, R. W.; Martin, R. L.; Winter, G., Magnetism, Electronic Spectra, and Structure of Transition Metal Alkoxides. Part II. The Preparation and Magnetism of Iron(III) Alkoxides. *Australian Journal of Chemistry* **1966**, *19* (3), 363-371.

Adams, R. W.; Barracough, C. G.; Martin, R. L.; Winter, G., Magnetism, Electronic Spectra, and Structure of Transition Metal Alkoxides. Part III. Spin-Spin Coupling in Trinuclear Fe<sub>3</sub>-Systems. *Inorganic Chemistry* **1966**, *5* (3), 346-350.

- Dubicki, L.; Martin, R. L., The  $\pi$  System of Binuclear Copper(II) and Chromium(II) Acetates. *Inorganic Chemistry* **1966**, *5* (12), 2203-2209.
- Dubicki, L.; Martin, R. L.; Harris, C. M.; Kokot, E., Magnetic Studies with Copper(II) Salts. VII. The Structure of Copper(II)  $\alpha,\omega$ -Dicarboxylates and Their Amine Derivatives. *Inorganic Chemistry* **1966**, *5* (1), 93-100.
- Golding, R. M.; Tennant, W. C.; Kanekar, C. R.; Martin, R. L.; White, A. H., NMR studies of a series of iron (III) dithiocarbamate complexes. *The Journal of Chemical Physics* **1966**, *45* (7), 2688-2693.
- Hoskins, B. F.; Martin, R. L.; White, A. H., Molecular and crystal structure of a 5-covalent iron (III) complex with spin,  $S=3/2$  [17]. *Nature* **1966**, *211* (5049), 627-628.
- Martin, R. L., Magnetic Studies with Copper(II) Salts. Part VIII. Vibrational Effects in the Singlet-Triplet Equilibrium of Copper(II) Acetate. *Inorganic Chemistry* **1966**, *5* (11), 2065-2067.
- Martin, R. L.; Stewart, I. M., Synthesis of transition metal complexes of the unknown chelate, dithioacetylacetone. *Nature* **1966**, *210* (5035), 522-523.
- Adams, R. W.; Barraclough, C. G.; Martin, R. L.; Winter, G., Magnetism, Electronic Spectra, and Structure of Transition Metal Alkoxides. Part V. Copper(II) Methoxides. *Australian Journal of Chemistry* **1967**, *20* (11), 2351-2356.
- Adams, R. W.; Martin, R. L.; Winter, G., Possible Ligand Field Effects in Metal-Oxygen Vibrations of Some First-row Transition Metal Alkoxides. *Australian Journal of Chemistry* **1967**, *20* (4), 773-774.
- Colton, R.; Martin, R. L., Eclipse cycles and eclipses at Stonehenge. *Nature* **1967**, *213* (5075), 476-478.
- Martin, R. L.; White, A. H., A Novel Series of Five-Coordinated Iron(III) Complexes with the Square-Pyramidal Configuration and Spin,  $S = 3/2$ . *Inorganic Chemistry* **1967**, *6* (4), 712-717.
- Ginsberg, A. P.; Martin, R. L.; Sherwood, R. C., Magnetic Exchange in Transition Metal Complexes. IV. Linear Trimeric Bis(acetylacetonato)nickel(II). *Inorganic Chemistry* **1968**, *7* (5), 932-936.
- Martin, R. L., Metal-metal interaction in paramagnetic clusters, in: *New Pathways in Inorganic Chemistry* eds. E.A.V. Ebsworth, A.G. Maddock, A.G. Sharp, Cambridge University Press, 1968, Chapter 9.
- Barraclough, C. G.; Martin, R. L.; Stewart, I. M., Transition metal complexes of dithioacetylacetone and diselenoacetylacetone: Syntheses, properties, and infrared spectra. *Australian Journal of Chemistry* **1969**, *22* (5), 891-904.
- Beckett, R.; Colton, R.; Hoskins, B. F.; Martin, R. L.; Vince, D. G., Magnetism and structure of a novel trinuclear cluster compound of divalent copper. *Australian Journal of Chemistry* **1969**, *22* (12), 2527-2533.
- Colton, R.; Martin, R. L., Eclipse prediction at Stonehenge. *Nature* **1969**, *221* (5185), 1011-1012.
- Dubicki, L.; Martin, R. L., The electronic spectra of binuclear molybdenum(II) carboxylates. *Australian Journal of Chemistry* **1969**, *22* (8), 1571-1581.
- Dubicki, L.; Martin, R. L., The relationship between crystal field and empirical molecular orbital parameters for tetragonal chromium(III) complexes. *Australian Journal of Chemistry* **1969**, *22* (4), 839-846.
- Dubicki, L.; Martin, R. L., The ligand field spectra of trinuclear chromium(III) and iron(III) basic acetates. *Australian Journal of Chemistry* **1969**, *22* (4), 701-707.
- Ewald, A. H.; Martin, R. L.; Sinn, E.; White, A. H., Electronic equilibrium between the 6A1 and 2T2 states in iron(III) dithio chelates. *Inorganic Chemistry* **1969**, *8* (9), 1837-1846.
- Harris, C. M.; Lockyer, T. N.; Martin, R. L.; Patil, H. R. H.; Sinn, E.; Stewart, I. M., Five- and six-coordinated complexes of cobalt(II) with 2,2',2''-terpyridyl: Unusual structure and magnetism. *Australian Journal of Chemistry* **1969**, *22* (10), 2105-2116.



- Heath, G. A.; Martin, R. L., Synthesis and properties of tris(dithioacetylacetonato)-complexes of cobalt(III), rhodium(III), and iridium(III). *Journal of the Chemical Society D: Chemical Communications* **1969**, (17), 951-952.
- Heath, G. A.; Martin, R. L.; Stewart, I. M., Dithiolylium derivatives of some transition metals. *Journal of the Chemical Society D: Chemical Communications* **1969**, (2), 54-55.
- Heath, G. A.; Martin, R. L.; Stewart, I. M., Dithiolium and diselenolium compounds of the transition metals. *Australian Journal of Chemistry* **1969**, 22 (1), 83-95.
- Heath, G. A.; Stewart, I. M.; Martin, R. L., Diselenoacetylacetonato and diselenolium derivatives of transition metals. *Inorganic and Nuclear Chemistry Letters* **1969**, 5 (3), 169-171.
- Martin, R. L.; Mitra, S., Paramagnetic anisotropy and ground state of  $\beta$ -cobalt(II) phthalocyanine. *Chemical Physics Letters* **1969**, 3 (4), 183-184.
- Martin, R. L.; White, A. H., Cobalt-59 nuclear magnetic resonance of sulphur, selenium and arsenic chelates of cobalt (III). *Nature* **1969**, 223 (5204), 394-396.
- Barracough, C. G.; Martin, R. L.; Mitra, S.; Sherwood, R. C., Paramagnetic anisotropy, low temperature magnetization, and electronic structure of iron (II) phthalocyanine. *The Journal of Chemical Physics* **1970**, 53 (5), 1643-1648.
- Barracough, C. G.; Martin, R. L.; Mitra, S.; Sherwood, R. C., Paramagnetic anisotropy, electronic structure, and ferromagnetism in spin S = manganese(II) phthalocyanine. *The Journal of Chemical Physics* **1970**, 53 (5), 1638-1642.
- Beckett, R.; Heath, G. A.; Hoskins, B. F.; Kelly, B. P.; Martin, R. L.; Roos, I. A. G.; Weickhardt, P. L., X-ray diffraction, magnetic, E.S.R., and Mossbauer studies on the low-spin complex tris(dithioacetylacetonato)iron(III). *Inorganic and Nuclear Chemistry Letters* **1970**, 6 (3), 257-260.
- Bond, A. M.; Heath, G. A.; Martin, R. L., Polarography in Acetone of Tris(Dithioacetylacetonato)-Complexes of Iron(III), Ruthenium(III), Osmium(III), and Rhodium(III). *Journal of the Electrochemical Society* **1970**, 117 (11), 1362-1367.
- Casey, A. T.; Ham, N. S.; Mackey, D. J.; Martin, R. L., Synthesis and infrared spectra of some dithiocacodylate complexes. *Australian Journal of Chemistry* **1970**, 23 (6), 1117-1123.
- Dubicki, L.; Martin, R. L., The Metal-Metal Bond in Binuclear Rhodium(II) Acetate Monohydrate. *Inorganic Chemistry* **1970**, 9 (3), 673-675.
- Dubicki, L.; Martin, R. L., The electronic spectra of acid and basic rhodo salts of chromium(III). *Australian Journal of Chemistry* **1970**, 23 (2), 215-222.
- Friedel, M. K.; Hoskins, B. F.; Martin, R. L.; Mason, S. A., A new metal(II) phthalocyanine structure: X-ray and Mössbauer studies of the triclinic tin(II) phthalocyanine. *Journal of the Chemical Society D: Chemical Communications* **1970**, (7), 400-401.
- Gregson, A. K.; Martin, R. L.; Mitra, S., Paramagnetic anisotropy, ESR and electronic structure of "square" planar bis(dithioacetylacetonato)cobalt(II). *Chemical Physics Letters* **1970**, 5 (5), 310-311.
- Heath, G. A.; Martin, R. L., The synthesis and properties of tris(dithioacetylacetonato) complexes of iron(III), ruthenium(III), and osmium(III). *Australian Journal of Chemistry* **1970**, 23 (9), 1721-1734.
- Martin, R. L.; Mitra, S., Notes Paramagnetic Anisotropy and Electronic Structure of  $\beta$ -Copper(II) Phthalocyanine. *Inorganic Chemistry* **1970**, 9 (1), 182-183.
- Barracough, C. G.; Martin, R. L.; Mitra, S., Diamagnetic anisotropies of metal-free, nickel(II), and zinc(II) phthalocyanines. *The Journal of Chemical Physics* **1971**, 55 (3), 1426-1429.
- Bond, A. M.; Heath, G. A.; Martin, R. L., Polarography of the Planar Dithioacetylacetonato Complexes of Cobalt(II), Nickel(II), Palladium(II), and Platinum(II) and Other Related Complexes of the Same Ligand in Acetone. *Inorganic Chemistry* **1971**, 10 (9), 2026-2032.

- Casey, A. T.; Mackey, D. J.; Martin, R. L., The electronic spectra and magnetic behaviour of some dithioacacodylate complexes. *Australian Journal of Chemistry* **1971**, *24* (8), 1587-1598.
- Coutts, R. S. P.; Martin, R. L.; Wailes, P. C., Monocyclopentadienyltitanium(III) compounds. *Australian Journal of Chemistry* **1971**, *24* (5), 1079-1080.
- Coutts, R. S. P.; Martin, R. L.; Wailes, P. C., Monocyclopentadienyltitanium(III) compounds:I. Halides and their tetrahydrofuran complexes. *Australian Journal of Chemistry* **1971**, *24* (12), 2533-2540.
- Gregson, A. K.; Martin, R. L.; Mitra, S., Magnetic Anisotropy and Electronic Structure of Binuclear Copper(II) acetate monohydrate. *Proceedings of the Royal Society of London Series A-Mathematical and Physical Sciences* **1971**, *320* (1543), 473-486.
- Heath, G. A.; Martin, R. L., The synthesis and properties of tris(dithioacetylacetonato) complexes of cobalt(III), rhodium(III), and iridium(III). *Australian Journal of Chemistry* **1971**, *24* (10), 2061-2070.
- Martin, R. L.; Roos, I. A. G., Mössbauer studies in transition metal chemistry:I. Compounds of iron with dithioacetylacetone (pentane-2, 4-dithione). *Australian Journal of Chemistry* **1971**, *24* (11), 2231-2236.
- Bond, A. M.; Hendrickson, A. R.; Martin, R. L., Polarographic and Coulometric Studies of O-ethylthioacetothioacetate and O-ethylthioacetate. *Journal of the Electrochemical Society* **1972**, *119* (10), 1325-1331.
- Casey, A. T.; Mackey, D. J.; Martin, R. L.; White, A. H., N, N-dialkyldithiocarbamate complexes of niobium(V), vanadium(V), molybdenum(V), molybdenum(VI), and rhenium(v). *Australian Journal of Chemistry* **1972**, *25* (3), 477-492.
- Coutts, R. S. P.; Martin, R. L.; Wailes, P. C., Monocyclopentadienyltitanium(III) compounds: II. Complexes of nitrogen containing ligands. *Australian Journal of Chemistry* **1972**, *25* (7), 1401-1409.
- Ginsberg, A. P.; Martin, R. L.; Brookes, R. W.; Sherwood, R. C.; Ginsberg, A. P.; Martin, R. L.; Brookes, R. W.; Sherwood, R. C., Magnetic Exchange in Transition Metal Complexes. IX.la Dimeric Nickel(II)-Ethylenediamine Complexes. *Inorganic Chemistry* **1972**, *11* (12), 2884-2889.
- Heath, G. A.; Martin, R. L.; Masters, A. F., Tris(dithioacetylacetonato)chromium(III). *Australian Journal of Chemistry* **1972**, *25* (12), 2547-2551.
- Hendrickson, A. R.; Martin, R. L., Thio-derivatives of 1, 3-diketones and their metal complexes; O-ethyl thioacetothioacetate and its zinc(II), cadmium(II), and mercury(II) derivatives. *Australian Journal of Chemistry* **1972**, *25* (2), 257-271.
- Bond, A. M.; Hendrickson, A. R.; Martin, R. L., Polarographic Oxidation and Reduction of O-Ethyl Thioacetothioacetato Complexes of Zinc(II), Cadmium(II), and Mercury(II) in Acetone. *Journal of the American Chemical Society* **1973**, *95* (5), 1449-1456.
- Chant, R.; Hendrickson, A. R.; Martin, R. L.; Rohde, N. M., Metal ion and ligand dependency of the redox behaviour of some first row transition metal dithiocarbamates. *Australian Journal of Chemistry* **1973**, *26* (11), 2533-2536.
- Coutts, R. S. P.; Martin, R. L.; Wailes, P. C., The metal-metal interaction in binuclear bis(cyclopentadienyl)titanium(III) halides. *Australian Journal of Chemistry* **1973**, *26* (10), 2101-2104.
- Coutts, R. S. P.; Martin, R. L.; Wailes, P. C., Monocyclopentadienyltitanium(III) compounds: IV. Carboxylates. *Australian Journal of Chemistry* **1973**, *26* (5), 941-950.
- Coutts, R. S. P.; Martin, R. L.; Wailes, P. C., Polymeric titanium(III) alkoxides. *Inorganic and Nuclear Chemistry Letters* **1973**, *9* (9), 981-985.
- Coutts, R. S. P.; Martin, R. L.; Wailes, P. C., The unexpected formation of titanoxanes. *Inorganic and Nuclear Chemistry Letters* **1973**, *9* (1), 49-52.
- Coutts, R. S. P.; Martin, R. L.; Wailes, P. C., Monocyclopentadienyltitanium(III) compounds: III. Complexes of oxygen-containing ligands. *Australian Journal of Chemistry* **1973**, *26* (1), 47-55.

- Coutts, R. S. P.; Wailes, P. C.; Martin, R. L., Novel reactions of monocyclopentadienyltitanium(III) dihalides with organic carbonyl groups. *Journal of Organometallic Chemistry* **1973**, *50* (1), 145-151.
- Coutts, R. S. P.; Wailes, P. C.; Martin, R. L., Dimeric dicyclopentadienyltitanium(III) halides. *Journal of Organometallic Chemistry* **1973**, *47* (2), 375-382.
- Emerson, K.; Emad, A.; Brookes, R. W.; Martin, R. L., Two Magnetically Subnormal Copper Halide Complexes with 1,8-Naphthyridine. *Inorganic Chemistry* **1973**, *12* (5), 978-981.
- Hendrickson, A. R.; Martin, R. L., An Improved Synthesis of Alky 1-Substituted 1,2-Dithiolium Salts. *Journal of Organic Chemistry* **1973**, *38* (14), 2548-2549.
- Hendrickson, A. R.; Martin, R. L., Thio Derivatives of 1, 3-Diketones and Their Metal Complexes. Nickel(II), Palladium(II), and Platinum(II) Chelates of O-Ethyl Thioacetothioacetate. *Inorganic Chemistry* **1973**, *12* (11), 2582-2589.
- Ho, R. K. Y.; Martin, R. L., Oxidative addition reactions with bis(dithioacetylacetonato)cobalt(II). *Australian Journal of Chemistry* **1973**, *26* (10), 2299-2302.
- Barracough, C. G.; Brookes, R. W.; Martin, R. L., Spin-spin coupling in copper(II) complexes of pentane-2,4-dione. *Australian Journal of Chemistry* **1974**, *27* (9), 1843-1850.
- Bond, M.; Martin, R. L.; Roos, I. A. G., Mössbauer studies in transition metal chemistry. III. Compounds of iron with some sulphur-containing schiff base ligands. *Australian Journal of Chemistry* **1974**, *27* (11), 2307-2317.
- Brookes, R. W.; Martin, R. L., A dimeric nickel(II) complex of 7-azaindole. *Australian Journal of Chemistry* **1974**, *27* (7), 1569-1571.
- Coutts, R. S. P.; Looney, F. D.; Martin, R. L.; Wailes, P. C., An electron spin resonance study of dimeric orantitanium(III) carboxylates. *Australian Journal of Chemistry* **1974**, *27* (9), 1851-1854.
- Ganguli, P.; Marathe, V. R.; Mitra, S.; Martin, R. L., Paramagnetic anisotropy and zero-field splitting in chloro bis (diethyldithiocarbamate) iron (III). *Chemical Physics Letters* **1974**, *26* (4), 529-532.
- Hendrickson, A. R.; Ho, R. K. Y.; Martin, R. L., Four- and Five-Coordinated Nitrosyls of Cobalt Dithioacetylacetonate. *Inorganic Chemistry* **1974**, *13* (6), 1279-1281.
- Hendrickson, A. R.; Martin, R. L., Dimeric dithio-carbamato cationic complexes. *Journal of the Chemical Society, Chemical Communications* **1974**, (21).
- Hendrickson, A. R.; Martin, R. L.; Rohde, N. M., Tris(dithiocarbamate) Complexes of Manganese(II), Manganese(III), and Manganese(IV). Electrochemical Study. *Inorganic Chemistry* **1974**, *13* (8), 1933-1939.
- Martin, R. L., Structural theory for non-stoichiometry. Part I. Defect fluorite-type structures: Lanthanoid oxides  $\text{MO}_x$  with  $1.7 \leq x \leq 2.0$ . *Journal of the Chemical Society, Dalton Transactions* **1974**, (12), 1335-1350.
- Martin, R. L.; Rohde, N. M.; Robertson, G. B.; Taylor, D., Structural Characterization of Tris(pyrrolidylthiocarbamate)iron(IV) Perchlorate. An  $\text{FeS}_6$  Complex of Unusually High Oxidation State. *Journal of the American Chemical Society* **1974**, *96* (11), 3647-3649.
- Martin, R. L.; Roos, I. A. G., Mössbauer studies in transition metal chemistry: II. Iron(III) methoxides and halomethoxides. *Australian Journal of Chemistry* **1974**, *27* (9), 1833-1842.
- Bond, A. M.; Martin, R. L.; Masters, A. F., Influence of Oxygen and Sulfur Donor Atoms on the Electrochemistry of Transition Metal Tris Chelates. *Inorganic Chemistry* **1975**, *14* (6), 1432-1435.
- Brookes, R. W.; Martin, R. L., Magnetic Exchange in Copper(II) Complexes of 7-Azaindole. *Inorganic Chemistry* **1975**, *14* (3), 528-536.
- Brookes, R. W.; Martin, R. L., A tetrameric cobalt(II) cluster of 7-azaindole. *Australian Journal of Chemistry* **1975**, *28* (6), 1363-1366.

- Chant, R.; Hendrickson, A. R.; Martin, R. L.; Rohde, N. M., Tris(dithiocarbamato) Complexes of Iron(II), Iron(III), and Iron(IV). An Electrochemical Study. *Inorganic Chemistry* **1975**, *14* (8), 1894-1902.
- Dhingra, M. M.; Ganguli, P.; Marathe, V. R.; Mitra, S.; Martin, R. L., Temperature dependence of the proton magnetic resonance spectra of halogeno-bis(N, N'-diethyldithiocarbamato)iron (III). *Journal of Magnetic Resonance (1969)* **1975**, *20* (1), 133-140.
- Hendrickson, A. R.; Martin, R. L., Thio Derivatives of 1,3-Diketones and Their Metal Complexes. O-Ethyl Thioacetothioacetato Complexes of Tervalent Group VIII Metals. *Inorganic Chemistry* **1975**, *14* (5), 979-982.
- Hendrickson, A. R.; Martin, R. L., Four, five and six coordinate complexes of nickel(II) with 1,3-monothio ligand O,O'-diethylmonothiomalonate. *Inorganica Chimica Acta* **1975**, *13* (C), 29-34.
- Hendrickson, A. R.; Martin, R. L.; Rohde, N. M., Dithiocarbamates of Nickel in the Formal Oxidation States I-IV. Electrochemical Study. *Inorganic Chemistry* **1975**, *14* (12), 2980-2985.
- Hendrickson, A. R.; Martin, R. L.; Taylor, D., Synthesis and properties of dimeric cobalt(III) dithiocarbamate complexes  $[\text{Co}_2(\text{R}_2\text{dtc})_5]^+$ : X-ray structural analysis of pentakis(diethyldithiocarbamato)dnicobalt(III) tetrafluoroborate. *Journal of the Chemical Society, Dalton Transactions* **1975**, (21), 2182-2188.
- Hendrickson, A. R.; Martin, R. L.; Taylor, D., Synthesis and X-ray structure of bis(diethyldithiocarbamato)( $\mu$ -dichloro) -dicopper(II),  $\text{Cu}_2(\text{Et}_2\text{dtc})_2\text{Cl}_2$ , and the X-ray structure of  $\text{Cu}_3(\text{Et}_2\text{dtc})_2\text{Cl}_3$ , an unusual mixed valence Cu(II), Cu(I) reduction product. *Journal of the Chemical Society, Chemical Communications* **1975**, (20), 843-844.
- Hoskins, B. F.; Martin, R. L., A structural theory for non-stoichiometry. Part II. Defect fluorite-type structures: Lanthanoid oxides  $\text{MO}_x$  with  $1.50 \leq x \leq 1.72$ . *Journal of the Chemical Society, Dalton Transactions* **1975**, (7), 576-588.
- Martin, R. L.; Masters, A. F., Thio Derivatives of 1,3-Diketones and Their Metal Complexes. Dithiomalonamide and its Nickel(II), Palladium(II), and Platinum(II) Derivatives. *Inorganic Chemistry* **1975**, *14* (4), 885-892.
- Bond, A. M.; Martin, R. L.; Masters, A. F., Influence of oxygen and sulphur donor atoms on the electrochemistry of bis-chelates of nickel(II). *Journal of Electroanalytical Chemistry* **1976**, *72* (2), 187-196.
- Gregson, A. K.; Martin, R. L.; Mitra, S., Paramagnetic anisotropy of planar cobalt(II) and copper(II) phthalocyanine, bis(pentane-2,4-dionato)copper(II), and bis(pentane-2,4-dithionato)cobalt(II). *Journal of the Chemical Society, Dalton Transactions* **1976**, (15), 1458-1466.
- Hendrickson, A. R.; Hope, J. M.; Martin, R. L., Tris- and pentakis-dialkyldithiocarbamates of ruthenium,  $[\text{Ru}(\text{S}_2\text{CNR}_2)_3]_n$  and  $[\text{Ru}_2(\text{S}_2\text{CNR}_2)_5]_n$  ( $n = +1, 0, \text{ and } -1$ ): Chemical and electrochemical interrelations. *Journal of the Chemical Society, Dalton Transactions* **1976**, (20), 2032-2039.
- Hendrickson, A. R.; Hope, J. M.; Martin, R. L., New 1,3-Dithio Chelates of Nickel(II) from Reactions of Coordinated Ligands. Their Characterization and Oxidation-Reduction Properties. *Inorganic Chemistry* **1976**, *15* (5), 1118-1122.
- Hendrickson, A. R.; Martin, R. L.; Rohde, N. M., Dithiocarbamates of Cu(I), Cu(II), and Cu(III). An Electrochemical Study. *Inorganic Chemistry* **1976**, *15* (9), 2115-2119.
- Hendrickson, A. R.; Martin, R. L.; Taylor, D., A binuclear rhodium(III) dithiocarbamate complex,  $[\text{Rh}_2(\text{Me}_2\text{NCS}_2)_5]\text{BF}_4$ . *Australian Journal of Chemistry* **1976**, *29* (2), 269-273.
- Hoskins, B. F.; Martin, R. L., A structural theory for non-stoichiometry. Part III. Defect fluorite-type structures: Vacancy superstructures in ordered praseodymium oxides. *Journal of the Chemical Society, Dalton Transactions* **1976**, (8), 676-685.

- Hoskins, B. F.; Martin, R. L.; Rohde, N. M., Mössbauer spectrum, molecular and crystal structure of tin(II) diethyldithiocarbamate. *Australian Journal of Chemistry* **1976**, *29* (1), 213-217.
- Macdonald, C. G.; Martin, R. L.; Masters, A. F., Donor-atom effects in the mass spectra of complexes of dipivaloylmethane and its monothio and dithio analogues. *Australian Journal of Chemistry* **1976**, *29* (2), 257-267.
- MacKey, D. J.; Evans, S. V.; Martin, R. L., Single-crystal magnetic studies of tris(ethylenediamine)nickel(II) nitrate. *Journal of the Chemical Society, Dalton Transactions* **1976**, (15), 1515-1520.
- Martin, R. L.; Taylor, D., Bending of Linear Nitric Oxide Ligands in Four-Coordinate Transition Metal Complexes. Crystal and Molecular Structure of Dinitrosyldithioacetatocobalt(-I), Co(NO)<sub>2</sub>(SacSac). *Inorganic Chemistry* **1976**, *15* (12), 2970-2976.
- Boyd, P. D. W.; Martin, R. L., Spin-spin interactions in the paired binuclear cluster tetrakis[μ-chloro-diethyldithiocarbamatocopper(II)]. *Journal of the Chemical Society, Dalton Transactions* **1977**, (1), 105-108.
- Hope, J. M.; Martin, R. L.; Taylor, D.; White, A. H., Ring expansion in a metal-dithiocarbamate complex by oxygen insertion; synthesis and properties of [Cr(S<sub>2</sub>CNR<sub>2</sub>)<sub>2</sub>(OS<sub>2</sub>CNR<sub>2</sub>)]. The X-ray structure of bis[NN-diethyl(dithiocarbamato-SS')] [NN-diethyl(dithioperoxycarbamato-OS)]chromium(III). *Journal of the Chemical Society, Chemical Communications* **1977**, (3), 99-100.
- Martin, R. L.; White, A. H.; Willis, A. C., Structural studies in metal-purpurate complexes. Part 1. Crystal structures of potassium purpurate trihydrate and ammonium purpurate monohydrate (murexide). *Journal of the Chemical Society, Dalton Transactions* **1977**, (14), 1336-1342.
- Hoskins, B. F.; Martin, R. L.; Taylor, D., A structural theory for non-stoichiometry. Part 4. Defect fluorite-type structures: Vacancy superstructures in ordered calcium oxide-hafnium dioxide ternary oxides. *Journal of the Chemical Society, Dalton Transactions* **1978**, (4), 320-328.
- MacKey, D. J.; Martin, R. L., Low-temperature magnetic studies of a linear trimeric nickel compound: abcjkl-hexa-aqua-def;ghi-hexakis[μ-1,2,4-triazole-N<sub>1</sub>N<sub>2</sub>]-tri-nickel(II) hexanitrate dihydrate. *Journal of the Chemical Society, Dalton Transactions* **1978**, (7), 702-704.
- Martin, R. L.; Roos, I. A. G.; Goodgame, D. M. L.; Machado, A. A. S. C., Mossbauer studies in transition metal chemistry. IV Iron(II) complexes of 2-(2'-pyridyl)benzimidazole. *Australian Journal of Chemistry* **1978**, *31* (3), 487-495.
- Radford, J. T., *The Chemistry Department of the University of Melbourne : its contribution to Australian science, 1854-1959*. Melbourne : Hawthorn Press: Melbourne, 1978.
- Baker, A. T.; Martin, R. L.; Taylor, D., Sterically hindered co-ordination sites in metal complexes. Part 2. Structural characterisation of two ligand conformations in the nickel(II) complex of the 'fly-over' ligand 2,2'-tetramethylenedioxydi(8-N-salicylideneiminonaphthalene). *Journal of the Chemical Society, Dalton Transactions* **1979**, (10), 1503-1511.
- Boyd, P. D. W.; Martin, R. L., Spin-spin interactions in polynuclear nickel(II) complexes: Susceptibility and low-temperature magnetisation studies of tris[bis(pentane-2,4-dionato)nickel(II)]. *Journal of the Chemical Society, Dalton Transactions* **1979**, (1), 92-95.
- Hendrickson, A. R.; Hope, J. M.; Martin, R. L., Sterically hindered co-ordination sites in metal complexes. Part 1. The synthesis and properties of 'capped' four-co-ordinate metal Schiff-base complexes. *Journal of the Chemical Society, Dalton Transactions* **1979**, (10), 1497-1502.
- Boyd, P. D. W.; Hope, J.; Martin, R. L., Spin spin interactions in polymeric copper(II) complexes: Cu(II)(piperidylcarbamate)<sub>2</sub>(Cu(I)X)<sub>4</sub> (X = Cl, Br). *Inorganica Chimica Acta* **1980**, *44* (C), L291-L294.
- Boyd, P. D. W.; Hope, J.; Martin, R., Spin spin interactions in polymeric copper(II) complexes: Cu(II)(piperidylcarbamate)<sub>2</sub>(Cu(I)X)<sub>4</sub> (X = Cl, Br). *Inorganica Chimica Acta* **1981**, *53* (C).

- Boyd, P. D. W.; Martin, R. L., Spin-spin interactions in polynuclear nickel(II) complexes: A susceptibility and low-temperature magnetisation study of the linear trimer hexakis(allylamine)hexakis  $\mu$ -benzotriazolyl-trinickel(II)-triphenyl-phosphine oxide (1/2). *Journal of the Chemical Society, Dalton Transactions* **1981**, (5), 1069-1073.
- Bowmaker, G. A.; Boyd, P. D. W.; Campbell, G. K.; Hope, J. M.; Martin, R. L., Spectroelectrochemical Studies of Nickel(I) Complexes: One-Electron Reduction of Nickel(II) Complexes of Dithiocarbamate and Phosphine Ligands  $[\text{Ni}(\text{R}_2\text{NCS}_2)_x(\text{Ph}_2\text{PCH}_2\text{CH}_2\text{PPh}_2)_{2-x}]^{2-x}$  ( $x = 0, 1, 2$ ). *Inorganic Chemistry* **1982**, 21 (3), 1152-1159.
- Martin, R. L.; Patrick, J. M.; Skelton, B. W.; Taylor, D.; White, A. H., Crystal Structure of Bis[N, N-diethyl(dithiocarbamato-S, S')]- [N, N-diethyl(dithioperoxycarbamato-O, S)]chromium(III). (A Redetermination). *Australian Journal of Chemistry* **1982**, 35 (12), 2551-2556.
- Bond, A. M.; Hendrickson, A. R.; Martin, R. L.; Moir, J. E.; Page, D. R., Electrochemical Reduction and Oxidation of Cobalt(III) Dithiocarbamates. *Inorganic Chemistry* **1983**, 22 (23), 3440-3446.
- Bond, A. M.; Martin, R. L., Electrochemistry and redox behaviour of transition metal dithiocarbamates. *Coordination Chemistry Reviews* **1984**, 54 (C), 23-98.
- Boyd, P. D. W.; Hope, J.; Martin, R. L., Synthesis and properties of tris(dithioacetylacetonato)vanadium(III). *Journal of the Chemical Society, Dalton Transactions* **1986**, (4), 887-889.
- Boyd, P. D. W.; Martin, R. L.; Schwarzenbach, G., Spin-spin interactions in polynuclear nickel(II) complexes: A low-temperature susceptibility and magnetization study of the cubane tetranuclear complex  $\text{Ni}_4^{\text{II}}(\text{chta})_4(\mu\text{-OH})_4(\text{NO}_3)_4 \cdot 7\text{H}_2\text{O}$  (chta = Cyclohexane-*r*-1,*c*-3,*c*-5-triamine). *Australian Journal of Chemistry* **1988**, 41 (9), 1449-1456.
- Martin, L. L.; Hagen, K. S.; Hauser, A.; Martin, R. L.; Sargeson, A. M., Spin equilibria in iron(II) hexa-amine cages. *Journal of the Chemical Society, Chemical Communications* **1988**, (19), 1313-1315.
- Martin, L. L.; Sargeson, A. M.; Martin, R. L.; Murray, K. S., Magnetism and Electronic Structure of a Series of Encapsulated First-Row Transition Metals. *Inorganic Chemistry* **1990**, 29 (7), 1387-1394.
- Gatehouse, B. M.; McLachlan, G.; Martin, L. L.; Martin, R. L.; Spiccia, L., Crystal and molecular structure of the peroxo-bridged dimer [(trenen)CoO<sub>2</sub>Co(trenen)](ClO<sub>4</sub>)<sub>4</sub> where trenen = *n, n'*-tris(2-aminoethyl)-ethane-1,2-diamine. *Australian Journal of Chemistry* **1991**, 44 (3), 351-359.
- Heath, G. A.; McGrady, J. E.; Martin, R. L., Characterisation of the UV, visible and near-IR spectra of the fulleride anions  $\text{C}_{60}^{1-}$ ,  $\text{C}_{60}^{2-}$  and  $\text{C}_{60}^{3-}$ , and theoretical analysis of the spectra of  $\text{C}_{60}^{1+}$ ,  $\text{C}_{60}^0$ ,  $\text{C}_{60}^{1-}$ ,  $\text{C}_{60}^{2-}$  and  $\text{C}_{60}^{3-}$  by self consistent field. *Journal of the Chemical Society, Chemical Communications* **1992**, (17), 1272-1274.
- Martin, L. L.; Martin, R. L.; Sargeson, A. M., The ligand field  $^1\text{A}_1$ - $^5\text{T}_2$  spin crossover with iron(II) encapsulated in hexa-amine cages. *Polyhedron* **1994**, 13 (13), 1969-1980.
- McLachlan, G. A.; Fallon, G. D.; Martin, R. L.; Moubaraki, B.; Murray, K. S.; Spiccia, L., Binuclear Nickel Complexes with Single Azide Bridges. Structure and Properties of  $[\text{Ni}_2(\text{N,N-bis}(2\text{-aminoethyl})\text{-N}'\text{-(2-pyridylmethyl)ethane-1,2-diamine})_2(\mu\text{-N}_3)](\text{ClO}_4)_3$  and  $[\text{Ni}_2(1,4\text{-bis}(2\text{-pyridylmethyl})\text{-1,4,7-triazacyclononane})_2(\mu\text{-N}_3)](\text{ClO}_4)_3$ . *Inorganic Chemistry* **1994**, 33 (21), 4663-4668.
- Hoskins, B. F.; Martin, R. L., The Structures of Higher Rare Earth Oxides: Role of the Coordination Defect. *Australian Journal of Chemistry* **1995**, 48 (4), 709-739.
- McLachlan, G. A.; Brudenell, S. J.; Fallon, G. D.; Martin, R. L.; Spiccia, L.; Tiekink, E. R. T., Synthesis, structure and properties of cobalt(III) complexes of pentadentate ligands with pyridyl pendant arms. *Journal of the Chemical Society, Dalton Transactions* **1995**, (3), 439-447.
- McLachlan, G. A.; Fallon, G. D.; Martin, R. L.; Spiccia, L., Synthesis, Structure and Properties of Five-Coordinate Copper(II) Complexes of Pentadentate Ligands with Pyridyl Pendant Arms. *Inorganic Chemistry* **1995**, 34 (1), 254-261.

- Martin, R. L., Defect fluorite-type structures: Modelling triclinic lanthanoid oxides. *Journal of the Chemical Society - Dalton Transactions* **1997**, (20), 3659-3670.
- Bevan, D. J. M.; Martin, R. L., Rare-earth oxides of the homologous series  $RnO_{2n-2m}$ : A new structural. *Zeitschrift für Anorganische und Allgemeine Chemie* **1999**, 625 (1), 57-69.
- Bevan, D. J. M.; Martin, R. L., The role of the coordination defect: A new structural description of four fluorite-related sesquioxide minerals, bixbyite ( $Mn_2O_3$ ), braunite ( $Mn_7SiO_{12}$ ), braunite II ( $CaMn_{14}SiO_{24}$ ), parwelite ( $Mn_{10}Sb_2As_2Si_2O_{24}$ ), and their structural relationships. *Journal of Solid State Chemistry* **2008**, 181 (9), 2250-2259.
- Vegas, A.; Martin, R. L.; Bevan, D. J. M., Compounds with a stuffed anti-bixbyite-type structure, analysed in terms of the Zintl-Klemm and coordination-defect concepts. *Acta Crystallographica Section B: Structural Science* **2009**, 65 (1), 11-21.
- Bevan, D. J. M.; Martin, R. L.; Vegas, Á., Rationalization of the substructures derived from the three fluorite-related  $[Li_6(MVLi)_4N_4]$  polymorphs: An analysis in terms of the "Bärnighausen trees" and of the "extended Zintl-Klemm concept". In *Structure and Bonding*, 2011; Vol. 138, pp 93-132.
- Bevan, D. J. M.; Martin, L. L.; Martin, R. L., The role of the coordination defect (CD) in the structures of anion-deficient, fluorite-related compounds. *Acta Crystallographica Section B: Structural Science* **2013**, 69 (1), 17-29.