

List of Publications - Julian Robert Koe

Refereed Articles

1. Platinum Metal Complexes of Potentially Chelating Alkene-Thioether and Alkene-Selenoether Ligands: The Synthesis and Dynamic Nuclear Magnetic Resonance Study of $[MX_2\{MeE(CH_2)_nCH=CH_2\}]$ (M is Pt or Pd; X is Cl, Br or I; E is S or Se; n is 2 or 3) and the X-Ray Structure of *cis*-Dibromo(6-thia-1-heptene)platinum(II), $[PtBr_2\{S(CH_2)_3CH=CH_2\}]$, E. W. Abel, P. A. Bates, D. G. Evans, M. B. Hursthouse, J. R. Koe and V. Sik, *J. Chem. Soc., Dalton Trans.* **1989**, 985-989.
2. Platinum Metal Complexes of Potentially Chelating Alkene-Thioether and Alkene-Selenoether Ligands: The Synthesis and Dynamic Nuclear Magnetic Resonance Study of $[MX_2\{E[(CH_2)_nCR=CR_2]_2\}]$ (M is Pt or Pd; X is Cl, Br or I; E is S or Se; R is H or Me; n is 2 or 3) and the X-Ray Structure of *cis*-Diiodoo(5-thia-1,8-nonadiene)platinum(II), $[PtI_2\{S(CH_2CH_2CH=CH_2)_2\}]$, E. W. Abel, P. A. Bates, D. G. Evans, M. B. Hursthouse, J. R. Koe and V. Sik, *J. Chem. Soc., Dalton Trans.* **1989**, 2315-2321.
3. Platinum Metal Complexes of Potentially Chelating Alkene-Thioether and Alkene-Selenoether Ligands: The Synthesis by Chalcogen-Dealkylation and X-Ray Crystal Structures of the Dimeric Complexes $[Pt(SCH_2CH_2CMe=CH_2)_2]$ and $[Pt(PPh_3)(SCH_2CH_2CMe=CH_2)_2]$ and the Dynamic Nuclear Magnetic Resonance Study of $[Pt(L)(SCH_2CH_2CMe=CH_2)_2]$ [L is PPh_3 , PPh_2Me or $As(CH_2SiMe_3)_3$], E. W. Abel, D. G. Evans, M. B. Hursthouse, J. R. Koe, M. Mahon, M. Mazid and K. C. Molloy, *J. Chem. Soc., Dalton Trans.* **1990**, 1697-1704.
4. UV Photolysis of Digermanyliron Complexes and Dynamic NMR Spectroscopy of Alkoxy-bridged Bis(germylene)iron Products, J. R. Koe, H. Tobita, T. Suzuki and H. Ogino, *Organometallics* **1992**, *11*, 150-154.
5. Platinum Metal Complexes of Potentially Chelating Alkene-Thioether and Alkene-Selenoether Ligands: Synthesis of the Trimeric Complexes $[RhCl\{E(CH_2CH_2CH=CH_2)_2\}]_3$ (E = S, Se) and the Crystal Structure of $[RhCl\{Se(CH_2CH_2CH=CH_2)_2\}]_3$, E. W. Abel, D. G. Evans, J. R. Koe, V. Sik, M. B. Hursthouse and M. Mazid, *Polyhedron* **1992**, *11*, 401-407.
6. Dimethylplatinum Complexes of Polydentate Alkene-Sulphur and -Selenium Ligands, E. W. Abel, D. G. Evans, J. R. Koe, M. B. Hursthouse and M. Mazid, *J. Chem. Soc., Dalton Trans.* **1992**, 663-667.
7. Photochemical Synthesis and Stereodynamic Behavior of Alkoxy-bridged Silylene(germylene)iron Complexes, J. R. Koe, H. Tobita and H. Ogino, *Organometallics* **1992**, *11*, 2479-2483.
8. Synthetic, Dynamic Nuclear Magnetic Resonance and Crystallographic Studies of Platinum Complexes containing Silyl-substituted Dialkenyl-thioether and -selenoether Ligands, E. W. Abel, J. R. Koe, M. B. Hursthouse, K. M. A. Malik and M. Mazid, *J. Chem. Soc., Dalton Trans.* **1994**, 2637-2643.
9. Platinum and Rhodium Complexes of Dialkenyltelluroether Ligands: Synthesis, Dynamic Nuclear Magnetic Resonance and Crystal Structure of *cis*-Dibromo(3,3,7,7-tetramethyl-5-tellura-3,7-disilano-1,8-diene)platinum(II), E. W. Abel, J. R. Koe, M. B. Hursthouse, K. M. A. Malik and M. Mazid, *J. Chem. Soc., Dalton Trans.* **1994**, 2645-2650.
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11. X-Ray Structure and Solid State ^{29}Si NMR Spectroscopy of the Octahalocyclotetrasilanes, Si_4Cl_8 and Si_4Br_8 , J. R. Koe, D. R. Powell, J. J. Buffy and R. West, *Polyhedron* **1998**, *17(10)*, 1791-1793.
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14. Helical Poly(alkyl-alkoxyphenylsilane)s Bearing Enantiopure Chiral Groups on the Phenyl Rings, H. Nakashima, M. Fujiki and J. R. Koe, *Macromolecules* **1999**, *22*, 7707-7709.
15. UV-visible, circular dichroism, and fluorescence spectra of polythiophenes with (S)-2-methyloctyl side chains, M. Fujiki, H. Nakashima, J. R. Koe and H. Takigawa, *Polymer Preprints (A. C. S., Div. Polym. Chem.)* **1999**, *40(1)*, 523-524.
16. Helical Diarylpolysilanes: Effects of Higher Order Structure on Optical Activity, J. R. Koe, M. Fujiki, H. Nakashima and M. Motonaga, *Polym. Prepr.* **2000**, *41(1)*, 906-907.
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19. Synthesis and Spectroscopic Characterization of Heteroatom Polysilylenes: Poly(dialkoxysilylene)s and Evidence for Silicon σ -Oxygen n Mixing Interaction, J. R. Koe, M. Motonaga, M. Fujiki and R. West, *Macromolecules* **2001**, *34*, 706-712.
20. Transfer and Amplification of Molecular Information to Polysilylene Aggregates, H. Nakashima, J. R. Koe, K. Torimitsu and M. Fujiki, *J. Am. Chem. Soc.* **2001**, *123*, 4847-4848.
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22. Computing Handedness. Quantized and Superposed Switch and Dynamic Memory of Helical Polysilylene, M. Fujiki, J. R. Koe, M. Motonaga, H. Nakashima, K. Terao and A. Teramoto, *J. Am. Chem. Soc.* **2001**, *123*, 6253-6261.
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Books and Chapters in Books

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2. Optically Active Silicon-containing Polymers, M. Fujiki and J. R. Koe in *Silicon-based Polymers: The Science and Technology of their Synthesis and Application*, R. G. Jones Ed., Kluwer, Dordrecht, **2000**, pp. 643-662.
3. Helical Diarylpolysilanes: Effects of Higher Order Structure on Optical Activity, J. R. Koe, M. Fujiki, H. Nakashima and M. Motonaga in *Synthetic Macromolecules with Higher Order Structure*, I. M. Khan, Ed., ACS Symposium Series 812, Washington DC: **2002**, pp. 67-86.
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6. Polysilanes, J. R. Koe in *Inorganic Polymers*, R. De Jaeger and M. Gleria, Eds., Nova Science Publishers, U.S.A., **2007**, Chapter 5 (85 pages).

Patents

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4. Silicon-containing Polymerization Initiators and Cationic Polymerization Method, J. R. Koe and S. Hayase, *Jpn. Kokai Tokkyo Koho* **1997**, 5 pp. CODEN: JKXXAF JP 09124788 A2 19970513 Heisei. CAN 127:66309 AN 1997:449544.

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6. Dialkoxypolysilanes and their Manufacture, M. Motonaga, J. R. Koe, M. Fujiki and H. Nakashima *Jpn. Kokai Tokkyo Koho* **2001**, 7 pp. CODEN: JKXXAF JP 2001316475 A2 20011113 CAN 135:358642 AN 2001:822523.
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9. Halogenated Alkoxythiophenes, their Polymers, their Manufacture and Electroluminescent Devices using them, M. Fujiki, H. Nakashima, J. R. Koe, Z-B. Zhang and M. Motonaga, *Jpn. Kokai Tokkyo Koho* **2001**, 8 pp. CODEN: JKXXAF JP 2001261796 A2 20010926 CAN 135:280208 AN 2001:703465.
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13. Circular Dichroism Switchable Polysilane Aggregates and Method therefor, M. Motonaga, J. R. Koe and M. Fujiki, *Jpn. Kokai Tokkyo Koho* submitted 19-5-2003.

Other Publications:

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2. "A Leap into the Unknown", J. R. Koe, *Tohoku University Bulletin* **1994**, 163, 24.
3. "A Personal View on Science and Technology in Japan", J. R. Koe, *Kagaku & Kogyo* **1996**, 49, 537-539.
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