Curriculum Vitae

Name: **Dr NG Siu Choon**

Present Appointment: **Professor**

Contact Information:
College of Engineering, NTU
70 Nanyang Avenue
Block N1.3, Level B1,
Singapore 637457
Tel: (65) 6790 4067; Email: ngsc@ntu.edu.sg

Research Areas:

- Synthetic design and Applications of Functional Materials
- Chiral Stationary Phases for enantioseparation of racemic compounds / drugs

Teaching Areas:

- Organic Chemistry

Academic/Professional Qualifications:

- BA (1st Class Honours), Oxford University (1984)
- D.Phil., Oxford University (1987)

Awards:

- Singapore Government Overseas Merit Scholar (1980 -1984)
- Oxford University Open Scholarship (1980 - 1984)
- CASE Scholarship at Dyson Perrin laboratory, Oxford (1984 – 1987)

Career History:

- Lecturer (Nov 1989-94), Chemistry Department, Natl Univ of Singapore
- Senior Lecturer (1994-98), Chemistry Department, Natl Univ of Singapore
- Associate Professor (1998-2004), Chemistry Department, Natl Univ of Singapore
- Associate Professor (2005-Sep 2006), SCBE, Nanyang Technological University
- Professor (Oct 2006 -), SCBE, Nanyang Technological University

Administrative Leadership:

- Deputy Head (Research & Teaching); Natl Univ of Singapore (1999-2004)
- Assoc Dean CoE (Admin); Nanyang Technological University; (Apr 2005 -)
- Head, Division of Chemical and Biomolecular Engineering, (Oct 2006 -)
- Deputy Director, Energetic Materials Research centre; Nanyang Technological University

Professional/Consulting Activities:

- Member, Singapore National Institute of Chemistry
- Member, Materials Research Society
- Organic Materials Consultant (1997-1999) to the following companies on their research programs:
  i. Moulding Industries Pte Ltd
  ii Cleanseal Pte Ltd

Technology Entrepreneurship

Director of a technology spin-off company “Chiral Science & Technology Pte Ltd”
Web-site: http://www.chiralpure.com

Publications to date:

International Journals- **172**
Conferences- **39;** Patents - **12**

International Peer-reviewed Journals

Total citations counts for all papers: 1422; non-self citations 1061 (01 Apr 2005)

Only international peer-reviewed journals referenced in the Science Citation Index and Current Contents are included in the list. Main-Author(s) for each paper underlined.

1. Baldwin, J E, R L Dyer, S C Ng, A J Pratt and M A Russel, Enzymatic synthesis of isotopically labelled *L*-tyrosine. *Tetrahedron Letters*, 28 (1987): 2304-2305. (United Kingdom).

2. Baldwin, J E, R L Dyer, S C Ng, A J Pratt and M A Russel, Application of E.Coli aspartate aminotransferase to amino acid synthesis. *Tetrahedron Letters*, 28 (1987): 3745-3746. (United Kingdom).

3. Baldwin, J B, S C Ng and A J Pratt, Synthesis of phenoxyacetyl-n-sulphonyl cycloserine. *Tetrahedron Letters,* 28(1987): 4319-4320. (United Kingdom).

4. Khor, E, S C Ng, H C Li and S Chai, Selective functionalisation of bithiophenes. *Heterocycles*, 32 (1991): 1805-1812.(Japan).

5. Chooi, S Y M, P H Leung, S C Ng, G H Quek and K Y Sim, A simple route to optically pure 2,3-diaminobutane. *Tetrahedron Asymmetry,* 2 (1991): 981-982. (United Kingdom).

6. Novak, I, S C Ng, H H Huang, C Y Mok, E Khor and B Kovac, Molecular and electronic structure of substituted bithiophenes. *Journal of Physical Organic Chemistry,* 4 (1991): 675-680. (United States).

7. Chan, H S O, S C Ng, T S A Hor, J Sun, K L Tan and B T G Tan, Poly(*m*-phenylenediamine): Synthesis and characterisation by X-ray photoelectron spectroscopy. *European Polymer Journal,* 27 (1991): 1303-1307. (United Kingdom).

8. Novak, I, S C Ng, K F Mok, C Y Mok and H H Huang, Conformation of 2,2'- Bithiophene and its derivatives in different aggregation states (In English). *Journal of Chemical Research : Synopses,* (1992): 350-351. (United Kingdom).

9. Chan, H S O, S C Ng, S H Seow and M J G Moderscheim, Symmetrically disubstituted poly(bithiophene)s: Influence of halogen substituents. *Journal of Materials Chemistry,* 2 (1992): 1135-1139. (United Kingdom).

10. Chan, H S O, S C Ng and W S Sim, Thermal analysis of conducting polymers Part II: Thermal characterisation of electroactive copolymers from aniline and anthranilic acid. *Thermochimica Acta,* 197 (1992): 349-355. (Switzerland).

11. Ching, C B, B G Lim, E J D Lee and S C Ng, Preparative resolution of praziquantel enatiomers by simulated counter-current chromatography. *Journal of Chromatography,* 634 (1992): 215-219. (The Netherlands).

12. Novak, I, S C Ng, Y T Chua, C Y Mok and H H Huang, He I photoelectron spectra of bifurans and thienylfurans. *Journal of Electron Spectroscopy and Related Phenomena,* 61 (1992): 143-147. (The Netherlands).

13. Ching, C B, B G Lim, E J D Lee and S C Ng, Chromatographic resolution of several β-blockers over cellulose tris(3,5-dimethylphenylcarbamate) chiral stationary phase. *Chirality,* 4 (1992): 174-177. (United States).

14. Teo, C C, O L Kon, K Y Sim and S C Ng, Synthesis of 2-(*p*-chlorobenzyl)-3-aryl-6-methoxybenzofurans as selective ligands for the antiestrogen-binding sites. Effects on cell proliferation and cholestrol synthesis. *Journal of Medicinal Chemistry,* 35 (1992): 1330-1339. (United States).

15. Chan, H S O, S C Ng and W S Sim, Themal analysis of conducting polymers Part II : Thermal characteristics of electroactive copolymers from aniline and anthranilic acid. *Thermochimica Acta,* 197 (1992): 349-355. (Switzerland).

16. Chan, H S O, S C Ng, W S Sim, K L Tan and B T G Tan, Preparation and characterization of electrically conducting polymer of aniline and anthranilic acid : Evidence for self-doping by XPS. *Macromolecules,* 25 (1992): 6029-6034. (United States).

17. Ji, W, S H Tang, G Q Xu, H S O Chan, S C Ng and W W Ng, Resonant optical nonlinearity of fullerenes in free-standing polymethyl methacrylate films. *Journal of Applied Physics,* 74 (1993): 3669-3672. (United States).

18. Chan, H S O, S C Ng, W S Sim, S H Seow, K L Tan and B T G Tan, Synthesis and characterisation of conducting poly(*o*-aminobenzyl alcohol) and its copolymers with aniline. *Macromolecules,* 26 (1993): 144-150. (United States).

19. Novak, I, S C Ng, Y T Chua, C Y Mok and H H Huang, Electronic structure of thiophenes with mixed substituents. *Journal of Electron Spectroscopy and Related Phenomena,* 63 (1993): 85-90. (The Netherlands).

20. Fang, Z G, T S A Hor, K F Mok, S C Ng, L K Liu and Y S Wen, 5-Substituted 1,3,4-oxathiazol-2-ones as a sulfur source for a sulfido cluster: Synthesis and molecular structure of the 48-electron equilateral triangular cluster anion $[Mn_3(\mu_3\text{-}S)_2(CO)_9]$. *Organometallics,* 12 (1993): 1009-1011. (United States).

21. Mok, K F, S C Ng, I Novak and H H Huang, Crystal structures of 3 , 5 , 5' -trichloro-2,2'-bithiophene and 3,3',5,5'-tetrachloro-2,2'-bithiophene. *Journal of Crystallographic and Spectroscopic Research,* 23 (1993): 799-803. (United States).

22. Ng, S C, O L Kon, K Y Sim and N Srikanth, An improved method for the synthesis of 2-(*p*-fluorobenzyl)-3-(aryl-6-methoxy)benzofurans as selective ligands for antiestrogen binding site. *Synthetic Communications,* 23 (1993): 1843-1853. (United States).

23. Novak, I, S C Ng and B Kovac, He I Photoelectron spectra of some camphor derivatives. *Spectrochimica Acta Part A - Molecular Spectroscopy A,* 49 (1993): 1629-1631. (United Kingdom).

24. Novak, I, S C Ng and A W Potts, The photoelectron spectrum of a chiral molecule CHFClBr. *Chemical Physics Letters,* 215 (1993): 561-564. (The Netherlands) .

25. Chan, H S O, S C Ng, S H Seow, W S Sim and T S A Hor, Thermal analysis of electroactive polymers based on aniline and its derivatives. A comparative study. *Journal of Thermal Analysis,* 39 (1993): 177-185. (United Kingdom).

26. Chan, H S O, S C Ng, W S Sim, S H Seow, K L Tan and B T G Tan, Synthesis and characterisation of conducting poly(*o*-aminobenzyl alcohol) and its copolymers with aniline. *Macromolecules*, 26 (1993): 144-150. (United States).

27. Zhu, J, N Srikanth, S C Ng, O L Kon and K Y Sim, Synthesis of 2-(4-halophenylmethyl)-3-arylbenzo-(β)-thiophenes and 2-(fluorophenylmethyl)-3-arylbenzo-(β)-selenophene as selective ligands for the antiestrogen-binding sites. *Journal of Chemical Research: Miniprint* (1994): 672-681. (United Kingdom).

28. Fang, Z G, Y S Wen, R K L Wong, S C Ng, L K Liu and T S A Hor, Substituted metal carbonyls. Part 25. Unidentate, intramolecular and intermolecular bridging modes of 1,1'-Bis(diphenylphosphino) ferrocene in $M_3S_2(CO)_9$ (M = Fe, Ru) cluster derivatives. *Journal of Cluster Science,* 5 (1994): 327-340. (United States).

29. Zhu, J, N Srikanth, S C Ng, O L Kon and K Y Sim, Synthesis of 2-(4-halophenylmethyl)-3-arylbenzo-(β)-thiophenes and 2-(fluoro phenylmethyl)-3-arylbenzo-(β)-selenophene as selective ligands for the antiestrogen-binding sites. *Journal of Chemical Research : Synopses* (1994): 98-99. (United Kingdom).

30. Novak, I, S C Ng and A W Potts, Photoelectron spectroscopic study of sulfur-sulfur interactions in macrocyclic thioethers. *Spectrochimica Acta Part A - Molecular Spectroscopy,* 50 (1994): 353-356. (United Kingdom).

31. Chan, H S O, S C Ng and W S Sim, A comparative study of polyaniline, poly(o-aminobenzyl alcohol) - and poly(o-aminobenzoic acid). *New Polymeric Materials*, 4 (1994): 83-95. (The Netherlands).

32. Novak, I, S C Ng, Y T Chua, C Y Mok and H H Huang, Electronic structure of ethynylthiophenes. *Journal of Physical Chemistry,* 98 (1994): 748-751. (United States).

33. Novak, I, S C Ng, Y T Chua, C Y Mok and H H Huang, Electronic structure of bichalcophenes. Journal of Physical Chemistry, 98 (1994): 5240-5243. (United States).

34. Novak, I, S C Ng, C Y Mok, H H Huang, J Fang and K K T Wang, New organic polymer precursors : Synthesis and electronic structure of thienylpyridines and thienylethynylpyridines. *Journal of the Chemical Society-Perkin Transactions 2,* 8 (1994): 1771-1775. (United Kingdom).

35. Novak, I, S C Ng, Y T Chua, C Y Mok and H H Huang, Hell photoelectron spectra of bifurans and thienylfurans. *Journal of Electron Spectroscopy and Related Phenomena,* 69 (1994): 177-180. (The Netherlands).

36. Chan, H S O, S C Ng and P K H Ho, Polyanilines doped with phosphoric acids: Their preparation and characterisation. *Macromolecules,* 27 (1994): 2159-2164. (United States).

37. Chan, H S O, S C Ng and S H Seow, Polybithiophene-modified electrode: spectrophotometric detection of ascorbic acid. *Synthetic Metals,* 66 (1994): 177-183, (Switzerland).

38. Fang Z G, P M N Low, S C Ng and T S A Hor, Synthesis of M^0 (η-dppf)$_2$ (M=Pd, Pt; dppf = $Fe(C_5H_4PPh_2)_2$) and their reactions with $Fe_3(\mu_3\text{-}S)_2(CO)_9$ and elemental sulfur. *Journal of Organometallic Chemistry,* 483 (1994): 17-20. (The Netherlands).

39. Chan, H S O, S C Ng and W S Sim, A comparative study of polyaniline poly(*o*-aminobenxyl alcohol) and poly(o-aminbenzoic acid). *New Polymeric Materials,* 4 (1994): 84-95. (The Netherlands).

40. Ng, S C, H S O Chan, H H Huang and P K H Ho, Poly(*o*-aminobenzylphosphonic acid): A novel water soluble self-doped functionalised polyaniline. *Journal of the Chemical Society. Chemical Communications* (1995): 1327-1328. (United Kingdom).

41. Lim, B G, C B Ching, R B H Tan and S C Ng, Recovery of (-)-praziquantel from racemic mixture by continuous chromatography and crystallisation. *Chemical Engineering Science,* 50 (1995): 2289-2298. (United Kingdom).

42. Chan, H S O, S C Ng, L S Leong and K L Tan, Poly(4-aminophenyl):chemical synthesis characterisation studies and comparison with conductive electropolymerised samples. *Synthetic Metals,* 68 (1995): 199-205. (Germany).

43. Li, T D, C H Chew, S C Ng, L M Gan, W K Teo, J Y Gu and G Y Zhang, Porous polymeric materials from cationic microemulsions. *Journal of Macromolecular Science - Pure and Applied Chemistry,* A32 (1995): 969-980. (United States).

44. Lim, B G, R B H Tan, S C Ng and C B Ching, Solubility phase diagram of praziquantel enantiomeric system. *Chirality,* 7 (1995) : 74-81.

45. Chan, H S O, P K H Ho, S C Ng, B T G Tan and K L Tan, A new water-soluble self-doping conducting polyaniline from poly(o-aminobenzylphosphoric acid) and its sodium salts: synthesis and characterisation. *Journal of the American Chemical Society,* 117 (1995): 8517-8523. (United States).

46. Ng, S C, H S O Chan, H H Huang and R S H Seow, A facile synthetic approach to symmetrical 3,3'-difunctionalised-2,2'-bithiophenes from 3,3'-dibromo-2,2-bithiophene. *Journal of Chemical Research : Synopses* (1996) : 232-233 .

47. Xie, Y, S C Ng, T S A Hor and H S O Chan, Regioselective debromination of 2,3,5-tribromothiophene: A facile synthesis of isomerically pure 2,3- and 2,4-dibromothiophene. *Journal of Chemical Research : Synopses* (1996): 150-151.

48. Ng, S C, H S O Chan, H H Huang, T T Ong and A Sarkar, Poly[1,2-di(2-selinyl)ethene]: A novel electroactive polymer with low band gap. *Journal of Materials Science Letters,* 15 (1996): 1684-1686.

49. Ng, S C, H S O Chan, L S Leong and A Sarkar, Synthesis of electrically conducting poly{2,2'-[5,5'-(1,2-ethylnediyl)bisthiophene]}. *Journal of Materials Science Letters* (1996): 664-665.

50. Ng, S C, H S O Chan, H H Huang and R S H Seow, A facile synthesis of symmetrical 3,3'-difunctionalised-2,2'-bithiophenes from 3,3'-dibromo-2,2'-bithiophene. *Journal of Chemical Research : Miniprint* (1996): 1285-1294.

51. Chan, H S O, P K H Ho, L Zhou, N Luo, S C Ng and SFY Li, In-situ atomic force microscopy of the electrochemical dissolution of a copper grain. *Langmuir : The ACS Journal of Surfaces and Colloids,* 12 (1996): 2580-2586. (United States).

52. Chua, Y T, C Y Mok, H H Huang, I Novak and S C Ng, Thermal decomposition of methylated y-thiobutyrolactones: a photoelectron spectroscopic study. *Journal of the Chemical Society-Perkin Transactions 2*, (1996): 577-582. (United Kingdom).

53. Ng, S C, H S O Chan and W L Yu, Synthesis and characterization of electrically conducing copolymers of ethylenedioxythiophene and 1,3-propylenedioxythiophene with omega-functional substituents. *Journal of Materials Science Letters*, 16, no.10 (15 May 1997): 809-811. (United Kingdom).

54. Ng, S C, H S O Chan and H Meng, Novel electrically conducting polyheteroarylene amines. J*ournal of Materials Science Letters,* 16 (1997): 841-842. (United Kingdom).

55. Srikanth, N, O L Kon, S C Ng and K Y Sim, Synthesis of 3(p-halobenzyl)-4-aryl-2H-chromenes as selective ligands for antiestrogen-binding sites. *Journal of Chemical Research : Synopses,* 6 (1997): 202-203. (United Kingdom).

56. Srikanth, N, O L Ron, S C Ng and K Y Sim, Synthesis of 3(p-halobenzyl)-4-aryl-2H-chromenes as selective ligands for antiestrogen-binding sites. *Journal of Chemical Research: Miniprint,* 6 (1997): 1412-1422. (United Kingdom).

57. Ng, S C, H S O Chan and P Miao, Poly[3,3~disulphidobis(2,2'-bithiophene) - A novel cross-linking electroactive polymer. *Journal of Materials Science Letters,* 16 (1997): 1170-1172. (United Kingdom).

58. Srikanth, N, C H Tan, S C Ng, T P Loh, L L Koh and K Y Sim, Synthesis of heterocyclic analogues of tamoxifen as potential antiestrogens. *Journal of Chemical Research ; Miniprint,*.8 (1997): 1828-1849. (United Kingdom).

59. Srikanth, N, C H Tan, S C Ng, T P Loh, L L Koh and K Y Sim, Synthesis of heterocyclic analogues of tamoxifen as potential antiestrogens. *Journal of Chemical Research : Synopses,*.8 (1997): 274-275. (United Kingdom).

60. Ng, S C, W L Yu and A C H Huan, Facile approach to a chemisorbed thin film of functionalized polythiophene on a glass surface. *Advanced Materials,* 9 (1997): 887. (Germany).

61. Ng, S C, H S O Chan, P Miao and K L Tan, Novel soluble regioregular homopolymer and copolymers incorporating 3,3'-dibutylsulfanyl-2,2'-bithiophene. *Synthetic Metals,* 90 (1997): 25-30. (The Netherlands).

62. Ng, S C, L G Xu and H S O Chan, A novel conductive polymer-poly[4-(2-thienyl)benzenamine]. *Journal of Materials Science Letters,* 16 (1997): 1738-1740. (United Kingdom).

63. Y, Xie, S C Ng, B M Wu, F Xue, T C W Mak and T S A Hor, α-Thienyl complexes of Palladium(II), trans-$PdBr(C_4H_{4-n}Br_{n-1}S\text{-}C)(PPh_3)_2$ (n=1-4), from oxidative addition of bromothiophenes to $Pd(PPh.3)_4$. X-ray structural identification of key intermediates of catalytic debromination of 2-bromothiophene and tetrabromothiophene. *Journal of Organometallic Chemistry,* 531 (1997): 175-181. (The Netherlands).

64. Ng, S C, I Novak, W Li, H H Huang and W Huang, Synthesis and electronic structure of 1,2-heteroarylethyne: Potential monomers for low bandgap conductive polymers. *Tetrahedron*, 53 (1997): 13339-13350. (United Kingdom).

65. Ng, S C, H S O Chan, P Fu and W L Yu, Electrically conducting poly[3-omega-hydroxylalky]thiophenes. *Synthetic Metals,* 87 (1997): 119-122.

66. Ng, S C, P G Parsons, K Y Sim and D J Young, The invitro antitumour activity of substituted dilantyl-1,3,2-dioxastannolanes. *Journal of Applied Organometallic Chemistry,* 11 (1997): 577-581.

67. Zhou, X C, L Zhong, S F Y Li, S C Ng and H S O Chan, Organic vapour sensors based on quartz crystal microbalance coated with self-asembled monolayers. *Sensors and Actuators B - Chemical,* 42 (1997): 59-65. (The Netherlands).

68. Yu, R, Q Liu, K L Tan, G Q Xu, S C Ng, H S O Chan and T S A Hor, Preparation, characterisation and catalytic hydrogenation properties of palladium supported on C_{60}. *Journal of the Chemical Society. Faraday Transactions,* 93 (1997): 2207-2210. (United Kingdom) .

69. Novak, I, S C Ng, S Jin, H H Huang and W Huang, Photoelectron spectroscopy study of orbital interaction. Ethynylfurans. *Journal of Physical Chemistry A,* 101 (1997): 3501-3504. (United States).

70. Novak, I, S C Ng, S Jin and A W Potts, Electronic structure of CHClBrI. *Journal of Chemical Physics,* 106 (1997): 9963-9964. (United States).

71. Li, S H, H S Ngew, H S O Chan, S C Ng, H K Lee and T S A Hor, Debromination of 1,4-dibromobenzene and 4,4'-dibromobiphenyl: A model for cleansing of PCBs. *Environmental Monitoring and Assessment,* 44 (1997): 481-485. (The Netherlands).

72. Chen, Z K, S C Ng, L Zhang, L G Xu, H S O Chan and S F Y Li, The fabrication and evaluation of a vapour sensor based on quartz crystal microbalance coated with poly(*o*-anisidine) Langmuir-Blodgett layers. *Synthetic Metals,* 87 (1997): 201-204. (The Netherlands).

73. Zhou, X C, S C Ng, H S O Chan and S F Y Li, Piezoelectric sensor for detection of organic amines in aqueous phase based on a polysiloxane coating incorporating acidic functional groups. *Analytica Chimica Acta*, 345 (1997): 29-35. (The Netherlands).

74. Zhou, X C, S C Ng, H S O Chan and S F Y Li, Detection of organic amines in liquid with chemically coated quartz crystal microbalance devices. *Sensors and Actuators B - Chemical,* 42 (1997): 137-144. (The Netherlands) .

75. Ng, S C, J M Xu and H S O Chan, Electrically conductive and fluorescent poly[1,4-bis(3-alkyl-2-thienyl)phenylenes] : syntheses and preliminary characterization aspects. *Synthetic Metals,* 92 (1998): 33-37.

76. Ng, S C, H S O Chan, T T Ong, K Kumura, Y Mazaki and K Kobayashi, Synthesis and characterisation of poly{1,2-di(2-selenienyl)ethene} , a novel electrically conductive selenophene-containing polymer with diminished bandgap. *Macromolecules*, 31 (24 February 1998): 1221-1228. (United States).

77. Chen, B L, K F Mok and S C Ng, Synthesis, crystal structures and dynamic NMR studies of novel trinuclear copper(I) halide complexes with 2,5-[diphenylphosphino)methyl]-thiophene. *Journal of the Chemical Society - Dalton Transactions*, 17 (1998): 2861-2866. (United Kingdom).

78. Chen, B L, K F Mok and S C Ng, Structural diversity in silver(I) and gold(I) complexes wioth 2,5-bis(diphenylphosphinomethyl)thiophene. *Journal of the Chemical Society - Dalton Transactions,* 23 (1998): 4035-4042. (United Kingdom).

79. Chen, B L, K F Mok, S C Ng, Y L Feng and S X Liu, Synthesis, characterization and crystal structures of three diverse copper(II) complexes with thiophene-2,5-dicarboxylic acid and 1,10-phenanthroline. *Polyhedron,* 17 (1998) : 4237-4247. (United Kingdom).

80. Ng, S C, P Miao and H S O Chan, Electrochemical syntheses and doping properties of poly[3,3'-dialkylsulphanyl-2,2'-bithiophene]S: Novel materials which exhibit facile N- and P-dopability. *Chemical Communications,* 153 (1998). (United Kingdom).

81. Ng, S C, L G Xu and H S O Chan, A novel functional block copolymer incorporating alkylsubstituted thiophene and aniline repeating units. *Synthetic Metals,* 94 (1998): 185-191. (The Netherlands).

82. Ng, S C, H S O Chan and P M L Wong, Novel heteroarylene polyazomethines: Their syntheses and characterizations. *Polymer,* 39 (1998): 4963-4968. (United Kingdom).

83. Ng, S C, P Miao and H S O Chan, A facile electrochemical grafing of poly(3,3'-dioctyl-2,2'-bithiophene) on gold surface modified with a chemisorbed monolayer of 3-mercapto-2,2'-bithiophenes. *Advanced Materials,* 10 (1998): 782-786. (Germany).

84. Chan, H S O and S C Ng, Some recent development in the synthesis, characterization and applications of thiophene based functional polymers. *Progress in Polymer Science,* 23 (1998): 1167-1231.

85. Ng, S C, I Novak, X You and W Huang, Orbital interactions in ethynylpyridines. Journal of *Physical Chemistry A,* 102 (1998): 904-908. (United States).

86. Yu, R.Q., L. Chen, Q. Liu, J Y Lin, K L Tan, S C Ng, H S O Chan, G Q Xu and T S A Hor, Platinum Deposition on Carbon Nanotubes via Chemical Modification. *Chemistry of Materials,* 10 (1998): 718-722. (United States).

87. Novak, I, S C Ng, L Wang and W Huang, The photoelectron spectrum of 2, 2'-bitellurophene. *Journal of Chemical Research : Synopses,* 8 (1998): 438-439. (United Kingdom).

88. Xie, Y, B W Wu, F Xue, S C Ng, T C W Mak and T S A Hor, Catalytic and stoichiometrically directed synthesis of less accessible bromothiophenes and bromobithiophenes. Trapping and characterization of catalytic intermediates of trans-PdBr($C_4H_{4-n}Br_{n-1}S$-C)$(PPh_3)_2$ (n=l-4), trans-PdBr ($C_8H_4BrS_2$-C)$(PPh_3)_2$, and trans, trans-$Pd_2Br_2(\mu$-$C_8Hg_nBr_{n-2}S_2$-C,C')$(PPh_3)_4$ (n=2, 4). *Organometallics,* 17 (1998): 3988-3995. (United States).

89. Chan, H S O, A J Neuendorf, S C Ng, P W L Wong and D L Young, Synthesis of fully sulfonated polyaniline : a novel approach using oxidative polymerisation under high pressure in the liquid phase. *Chemical Communications,* 13 (1998) : 1327-1328. (United Kingdom).

90. Ng, S C, X C Zhou, Z K Chen, P Miao, H S O Chan, S F Y Li and P Fu, Quartz crystal microbalance sensor deposited with Langmuir-Blodgett films of functionalized polythiophenes and application to heavy metal ions analysis. *Langmuir : The ACS Journal of Surfaces and Colloids,* 14 (1998): 1748-1752. (United States).

91. Ng, S C and L G Xu, Poly[4-(2-heteroacryl)benzenamines] : Novel electrically conducting alternating block copolymers of aniline and chalcophenes. *Advanced Materials,* 10 (1998): 1525-1530. (Germany).

92. Ng, S C, H S O Chan, J F Xia and W L Yu, Electrically conductive graft copolymers of poly(methyl methacrylate) with varying polypyrrole and poly(3-alkylpyrroles) contents. *Journal of Materials Chemistry,* 8 (1998): 2347-2352. (United Kingdom).

93. Ng, S C, T T Ong and H S O Chan, Poly{3,3'-dialkyl-2,2'-(1,2-ethyndiyl)bisthiophene} : Electrically conducting and fluorescent polymers incorporating a rigid acetylenic spacer. *Journal of Materials Chemistry,* 8 (1998): 2663-2669. (United Kingdom).

94. Xie, Y, G K Tan, Y K Yan, J J Vittal, S C Ng and T S A Hor, Reductive coupling of halogenothiophenes and halogenothiazoles catalyzed by Pd(II) in a basic alcohol medium. *Journal of the Chemical Society -Dalton Transactions,* 5 (1999): 773-779. (United Kingdom).

95. Chen, Bang-Lin, K F Mok, S C Ng and M G B Drew, Syntheses, structures and properties of copper(II) complexes with thiophene-2, 5-dicarboxylic acid (H_2Tda) and nitrogen-containing ligands. *Polyhedron,* 18 (1999): 1211-1220. (United Kingdom).

96. Chen, B L, K F Mok, S C Ng and M G B Drew, Thiophene-2, 5-dicarboxylic acid incorporated self-assembly of one-, two- and three-dimensional coordination polymers. *New Journal of Chemistry,* 23 (1999): 877-883. (United Kingdom).

97. L F Zhang, L Chen, T C Lee and S C Ng, A facile route into 6^A-mono-ω-alkynylcarbamido-6^A-deoxy--perfunctionalised cyclodextrin : key intermediate for further reactive functionalisations. *Tetrahedron Asymmetry,* 10 (1999): 4107-4113. (United Kingdom).

98. Ng S C and P Miao, Novel functionalization polybithiophenes incorporating pendant disulfide linkers. *Macromolecular Chemistry and Physics,* 200 (1999): 2166-2172. (Switzerland).

99. Ng S C and P Miao, Electrochemical synthesis and characterization studies of poly[3,3'-dialkylsulfanyl-2,2'-bithiophene films. *Macromolecules,* 32 (1999): 5313-5320. (United States).

100. Chen, Z K, Y H Lai, H S O Chan, S C Ng and W Huang, Green-blue photoluminescence from a novel silicon-containing alternating copolymer. *Chemistry Letters,* 6 (1999): 477-478.

101. Ng, S C, Y Ma, H S O Chan and Z L Dou, Syntheses and chactacterisation of electrically conductive and fluorescent poly[3-(ω-bormoalkyl)thiophenes]. *Synthetic Metals,* 100 (1999): 269-277. (Switzerland).

102. Wang, J W, M P Srinivasan and S C Ng, Polyimide films from linear and network precursors. *Journal of Materials Chemistry,* 9 (1999): 655-659. (United Kingdom).

103. Ng, S C, J M Xu, H S O Chan, A Fujii and K Yoshino, Regioregular poly[3-butyl-2,5-thienylene-alt-l,4-phenylene] : synthesis, preliminary characterization aspects and application in the fabrication of light-emitting diodes. *Journal of Materials Chemistry,* 9 (1999): 381-385. (United Kingdom).

104. L F Zhang, Y C Wong, L Chen, S C Ng and C B Ching, A facile immobilization onto silica via the Staudinger reaction. *Tetrahedron Letters,* 40 (1999): 1815-1818. (United Kingdom).

105. Ng S C and L G Xu, Poly[4-(2-heteroaryl)benzenamines] : Novel electrically conducting alternating copolymers of aniline and chalcophenes. *Advanced Materials,* 10 (1999): 1525. (United States) .

106. Ng S C, T T Ong and H S O Chan, Poly[3,3'--diakyl-2,2'-(ethyne-1,2-diyl)bis(thiophene)]: electrically conducting and fluorescent polymers incorporating a rigid acetylenic spacer. *Journal of Materials Chemistry,* 8 (1999): 2663-2669. (United Kingdom).

107. Chen B L, K F Mok and S C Ng, Structural diversity in silver(I) andd gold(I) complexes woth 2,5-bis(diphenylphosphinomethyl)thiophene. *Journal of the Chemical Society - Dalton Transactions,* 23 (1999): 4035-4041. (United Kingdom).

108. Ng S C, H Ding and H S O Chan, Regioregular poly[2,5-butyl-2-thienyl)tellurophene]: Synthesis and charaterization aspects. *Chemistry Letters* (1999): 1325-1326.

109. Ching C B, P Fu, S C Ng and Y K Xu, Effect of mobile phase composition on the separation of propranolol enantiomers using a perphenylcarbamate beta-cyclodextrin bonded chiral stationary phase. *Journal of Chromatography A,* 898 (2000): 53-61.

110. Lu Y F Z M Ren, Z H Mai, T C Chong, S C Ng and P Maio, Deposition of crystal polyaniline thin films of K_rF excimer laser ablation. *Journal of Materials Research,* 15 (2000): 536-540. (United States).

111. Ng S C, J M Xu and H S O Chan, Thermal stability and kinetic study of conductive polymers containing phenylene and bithiophene units. *Synthetic Metals,* 110 (2000): 31-36. (The Netherlands).

112. Ng S C, J M Xu and H S O Chan, Synthesis and characterization of regioregular containing substituted thienylene/bithienylene and phenylene repeating units. *Macromolecules,* 33 (2000) : 7349-7358. (United States).

113. Ng S C, H F Lu, H S O Chan, A Fujii and K Yoshino, Blue electroluminesscence from a novel donor/acceptor polymer structure. *Advanced Materials,* 12 (2000): 1122. (Germany).

114. Fujii, A, R Ootake, T Fujisawa, M Ozaki, Y Ohmori, T Laga, K Yoshino, H -F Lu, H S O Chan and S C Ng, Optical properties, spectral narrowing of photoluminescence and blue electroluminescence of poly(phenylene pyridine) derivatives. *Applied Physics Letters,* 77 (2000): 660-662.

115. Atkinson S, Chan H S O, Neuendorf A J, Ng S C, Ong T T and Young D J, Synthesis of the water-soluble, electrically conducting poly(5-aminonaphthalene-2-sulfonic acid). *Chemistry Letters*, (3) (2000): 276-277.

116. Ng S C, M Ding, H S O Chan and W L Yu, Electrochemical and optical properties of novel poly [3-sbustituted-2,2'-bithiophenes]s. *Macromolecular Chemistry and Physics,* 202 (2001): 8-13.

117. Li G T, Kossmehl G, Kautek W, Plieth W, Zhu H S, Chan H S O and Ng S C, Reactive groups on polymer-coated electrodes. Part 12. New conducting carrier materials. Polyalkylthiophene functionalized with amino group and its protected forms. *Macromolecular Chemistry and Physics*, 201(1) (2000): 21-30.

118. Xu, J M, S C Ng and H S O Chan, A series of thienylene/phenylene-based polymers functionalized with electron-withdrawing or -donating groups: Synthesis and characterization. *Macromolecules,* 34 (2001): 4314-4323.

119. Xu J M, S C Ng and H S O Chan, Preliminary study on alternating thienylene/phenylene copolymers functionalized with electron-donating or -withdrawing group. *Journal of Materials Research,* 16 (2001): 1235-1237.

120. Xu J M, S C Ng and H S O Chan, A new approach to the synthesis of substituted bithiophene and polymers containing thiophene. *Tetrahedron Letters,* 42 (2001): 5327-5329.

121. Ng S C, H F Lu, H S O Chan, A Fujii, T Laga and K Yoshino, Novel efficient blue fluorescent polymers comprising alternating phenylene pyridine repeat unit. Their syntheses, characterization and optical properties. *Macromolecules,* 34 (2001): 6895-6903. (United States).

122. Xu, L G, S C Ng and H S O Chan, Polyaniline with omega-hydroxy alkoxy pendant substituent on the meta-position. *Synthetic Metals,* 123 (2001): 403-410. (Switzerland).

123. Miao, P, C-Y Zhang, H S O Chan and S C Ng, Electrochemical and optical properties of novel poly(3-substituted-2,2'-bithiophene)s. *Macromolecular Chemistry and Physics,* 202, (2001): 1-7.

124. Ootake, R, T Fujisawa, T Sonoda, A Fujii, T Laga, H F Lu, H S O Chan, S C Ng and K Yoshino, Optical and electrical properties of poly (phenylene pyridine) derivatives. *Synthetic Metals,* 119 (2001): 593-594.

125. Laga T, Ootake R, Fujisawa T, Hidayat R, Fujii A, Lu HF, Chan HSO, Ng SC, Yoshino K, Spectral narrowing of photoluminescence and blue light-emitting diodes of poly(phenylene pyridine) derivatives. *Synthetic Metals,* 119 (2001): 601-602.

126. Ng, S C, L Chen and C B Ching, Facile preparative HPLC enantioseparation of racemic drugs using chiral stationary phases based on mono-6^A-azido-6^A-deoxy-perphenylcarbamoylated-beta-cyclodextrin immobilized on silica gel. *Tetrahedron Letters,* 43 (2002): 677-681. (United Kingdom).

127. Ng, S C, T T Ong, P Fu and C B Ching, Enantioseparation of flavour and fragrance compounds by HPLC using novel-urea-covalent bonded methylated-β-cyclodextrins on silica. *Journal of Chromatography A,* 968 (2002): 31-40. (The Netherlands)

128. Chen L, Zhang L F, Ching C B and Ng S C. Synthesis and chromatographic properties of a novel chiral stationary phase derived from heptakis(6-azido-6-deoxy-2,3-di-O-phenylcarbamoylated)-β-cyclodextrin immobilized onto amino-functionalized silica gel via multiple urea linkages. *Journal of Chromatography A*, 950(1-2) (2002): 65-74.

129. Velmurugan, T, C B Ching, S C Ng, Z W Bai and T T Ong, Optimization of the reversed-phase high-performance chromatographic separation of the enantiomers of a carbonic chiral drug (tolperisone) on a heptakis(6-azido-6-deoxy) perphenylcarbamoylated–β–cyclodextrin columns. *Chromatographia*, 56 (2002): 229-232. (Germany).

130. Yu, H W, P Fu, C B Ching and S C Ng, Enantioseparation of fluoxetine on a new β-cyclodextrin column by HPLC. *Separation Science and Technology,* 37 (2002): 1401-1415. (United States).

131. Li, D-B, S C Ng and I Novak, Synthesis and intramolecular inclusion of β-cyclodextrins linked with a cyclohexyl group. *Tetrahedron Letters,* 43 (2002): 1871-1875.

132. Li, D-B, S C Ng and I Novak, Novel synthetic approaches to CHBrFI, CHClFI, CHBrCl. *Tetrahedron,* 58 (2002): 5923-5926.

133. Ng, S C, T Sun and H S O Chan, Chiral discrimination of enantiomers with a self-assembled monolayer of functionalized β-cyclodextrins on Au surfaces. *Tetrahedron Letters,* 43 (2002): 2863-2866.

134. Xu J M, H S O Chan, S C Ng and N T S Chung, Polymers synthesized from (3-alkylthio)thiophenes by the $FeCl_3$ oxidation method. *Synthetic Metals,* 132 (2002): 63-69.

135. Lu H F, H S O Chan and S C Ng, Synthesis, characterization and electronic and optical properties of donor-acceptor conjugated polymers based on alternating bis(3-alkylthiophene) and pyridine moieties. *Macromolecules*, 36 (2003): 1543-1552.

136. Lai X H and S C Ng, Mono(6A-N-allylamino-6A-deoxy)perphenylcarbamoylated–β–cyclodextrin: Synthesis and application as chiral stationary phase for HPLC. *Tetrahedron Letters,* 44 (2003): 2657-2660.

137. Xu J M, S C Ng and H S O Chan, Polymers containing alternating 1, 4-bis(3-octyl-2,5-thienylene)phenylene and 2,5-pyridyl, 4,4'-biphenylene or phenylene repeating units. *Acta Materialia,* 51 (2003): 1743-1754.

138. Bai Z W, C B Ching and S C Ng, Monochloro-substituted phenyl carbamoylated beta-cyclodextrins as pi-acid chiral stationary phases for high-performance liquid chromatography. *Chromatographia*, 58 (2003): 43-46.

139. Ng S C, T Sun and H S O Chan, Durable chiral sensor based on quartz crystal microbalance using self-assembled monolayer of permethylated beta-cyclodextrin. *Macromolecular Symposia*, 92 (2003): 171-181.

140. Ong T T, S C Ng and H S O Chan, Synthesis, characterization and electrochemical properties of polybiselenophene. *Polymer,* 44 (2003): 5597-5603.

141. Ong T T, S C Ng, H S O Chan, V Vardhana, K Kumura, Y Mazaki and K Kobayashi, Development of a novel isotype organic heterojunction diode consisting of poly{7-spiro(9-fluorenyl)cyclopentadithiophene} and poly(3-octylthiophene). *Journal of Materials Chemistry,* 13 (2003): 2185-2188.

142. Yang X T, Xu L G, Ng S C and Chan H S O. Magnetic and electrical properties of polypyrrole-coated γ-Fe_2O_3 nanocomposite particles. *Nanotechnology*, 14(6) (2003): 624-629.

143. Xu J M, Ng S C and Chan H S O. Alkylthio-functionalized polymers containing alternating phenylene and thiophenediyl/bithiophenediyl repeating units: The synthesis and characterization. *Bulletin of the Chemical Society of Japan*. 76(7) (2003): 1449-1458.

144. Xu J M, Ng S C and Chan H S O. Structure-property correlation of light-emitting polymers containing alternating phenylene and thienylene/bithienylene repeating units. Macromolecular Symposia 195 (2003): 95-100.

145. Lai X H and Ng S C, Preparation and chiral recognition of a novel chiral stationary phase for high-performance liquid chromatography, based on mono(6^A-*N*-allylamino-6^A-deoxy)-perfunctionalized β–cyclodextrin and covalently bonded silica gel. *Journal of Chromatography A,* 1031 (2004): 135-142.

146. Lai X H and Ng S C, Convenient synthesis of mono-(6^A-*N*-allyamino-6^A-deoxy)permethylated-β–cyclodextrin: A promising chiral selector for an HPLC chiral stationary phase. *Tetrahedron Letters*, 45(23) (2004): 4469-4472.

147. Lai X H, Bai Z W, Ching C B and Ng S C, Preparation and enantioseparation characteristics of two chiral stationary phases based on mono-(6^A-azido-6^A-deoxy)perphenylcarbamoylated α- and γ–Cyclodextrin. *Chirality*, 16(9) (2004): 592-597.

148. Liu S P, Chan H S O, Ng S C, Poly-[2,7-(9,9-dihexylfluorene)-alt-pyridine] with donor-acceptor architectures: A new series of blue-light-emitting alternating copolymers. *Journal of Polymer Science, Part A: Polymer Chemistry*, 42(19) (2004): 4792-4801.

149. Lai X H and Ng S C, Enantioseparation on mono-(6^A-*N*-allylamino-6^A-deoxy)permethylated-β–cyclodextrin covalently bonded silica gel. *Journal of chromatography A*, 1059(1-2) (2004): 53-59.

150. Bai Z W, Lai X H, Chen L, Ching C B and Ng S C. Arylcarbamoylated allylcarbamido-□-cyclodextrin: synthesis and immobilization on nonfunctionalized silica gel as a chiral stationary phase. *Tetrahedron Letters*, 45(39) (2004): 7323-7326.

151. Muderawan I W, Ong, T T, Tang W H, Young D J, Ching C B and Ng S C. Synthesis of ammonium substituted β-cyclodextrins for enantioseparation of anionic analytes. *Tetrahedron Letters*, 46(10) (2005): 1747-1749.

152. Liu S P, Ng S C and Chan H S O, Novel fluorene-pyridine-based alternating copolymers: synthesis, characterization and optical properties. *Synthetic Metals*, 149(1) (2005): 1-11.

153. Cheng D, Ng S C and Chan H S O. Morphology of polyaniline nanoparticles synthesized in triblock copolymers micelles. *Thin Solid Films*, 477(1-2) (2005): 19-23.

154. Huang L, Poh C, Ng S C, Hidajat K. and Kawi S, Preparation of Supported Mesoporous Thin Films Concerning Template Removal by Supercritical Fluid Extraction. *Langmuir*, 21(4) (2005): 1171-1174.

155. Tang, W.-H, Ong, T. T., Ng, S. C., Enantioseparation of dansyl amino acids by a novel single-isomer positively charged cyclodextrin: mono-6^A-N-allylammonium-6^A-deoxy-β-CD in capillary electrophoresis, *Anal. Chim. Acta* 546 *(*2005): 119-125.

156. Pan, X.-Y, Liu S P, Chan H S O and Ng, S. C. Novel Fluorescent Carbazolyl-Pyridinyl Alternating Copoloymers: Synthesis, Characterization, and Properties. *Macromolecules* 38 (2005): 7629-7635.

157. Tang, W.-H, Wayan, I M., Ong, T. T., Ng, S. C. A family of single-isomer positively charged cyclodextrin as chiral selector for capillary electrophoresis: mono-6^A-butylammonium-6^A-deoxy-β-cyclodextrin, *Electrophoresis* 26 (2005): 3125- 3133.

158. Tang, W.-H, Wayan, I M., Ong, T. T., Ng, S. C. Enantioseparation of acidic enantiomers in capillary electrophoresis using a novel single-isomer of positively charged p-cyclodextrin: Mono-6^A-N-pentylammonium-6^A-deoxy-β-cyclodextrin chloride. *Journal of Chromatography A*, 1091 (2005): 152-157.

159. Huang L, Kawi S, Poh C, Hidajat K, Ng SC, Extraction of cationic surfactant templates from mesoporous materials by CH_3OH-modified CO_2 supercritical fluid. *Talanta* 66 (2005): 943-951.

160. Huang L, Kawi S, Poh C, Hidajat K, Ng SC, Preparation of M41S family mesoporous silica thin films on porous oxides, *Microporous and Mesoporous Materials* 82 (2005): 87-97.

161. Huang Z, Huang L, Shen SC, Poh CC, Hidajat K, Kawi S, Ng SC, High quality mesoporous materials prepared by supercritical fluid extraction: effect of curing treatment on their structural stability. Microporous and Mesoporous Materials 80 (2005): 157-163.

162. Bai ZW, Chen L, Ching CB, Ng SC, Preparation and enantioseparation properties of chiral stationary phases derived from arylcarbamoylated beta-cyclodextrin, Journal of Liquid Chromatography & Related Technologies 28 (2005): 883-897.

163. Tang WH, Muderawan IW, Ng SC, Chan HSO, Enantiomeric separation of 8 hydroxy, 10 carboxylic and 6 dansyl amino acids by mono(6-amino-6-deoxy)-beta-cyclodextrin in capillary electrophoresis, *Anal. Chim. Acta* 554 (2005): 156-162.

164. Muderawan I W, Ong, T T, Lee, T C, Young D J, Ching C B and Ng S C. A reliable synthesis of 2- and 6-amino-β-cyclodextrin and permethylated--β-cyclodextrin. *Tetrahedron Letters*, 46 (2005): 7905-7907.

165. Ong, T. T., Tang, W.-H, Muderawan, I W., Ng, S-C. Synthesis and application of single-isomer mono-6-(alkylimidazolium)-β-cyclodextrins as chiral selectors in chiral capillary electrophoresis, *Electrophoresis*, 26 (2005) 3839-3848.

166. Tang, W., Muderawan, I W., Chan, H. S. O., Ng, S-C. *Synthesis and application of mono-6-ammonium-6-deoxy-β-cyclodextrin chloride as chiral selector for capillary electrophoresis*, *Journal of Chomatography A,* 1094 (2005) 187-191.

167. Huang L, Kawi S, Poh C, Hidajat K, Ng SC, Formation of mesoporous silica thin films on oxide substrates by casting, Microporous and Mesoporous Materials 88 (2006): 254-265.

168. Liu F, Liu X, Ng SC, Chan HSO, Enantioselective molecular imprinting polymer coated QCM for the recognition of L-tryptophan, Sensors and Actuators B-Chemical 113 (2006): 234-240.

169. Muderawan IW, Ong TT, Ng SC, Urea bonded cyclodextrin derivatives onto silica for chiral HPLC. *Journal of Separation Science* 29 (2006): 1849-1871.

170. Lin B, Shi ZG, Zhang HJ, Ng SC, Feng YQ, Perphenylcarbamoylated beta-cyclodextrin bonded-silica particles as chiral stationary phase for enantioseparation by pressure-assisted capillary electrochromatography, *Electrophoresis* 27 (2006): 3057-3065.

171. Tang WH, Muderawan IW, Ng SC, Chan HSO, Enantioselective separation in capillary electrophoresis using a novel mono-6(A)-propylammonium-beta-cyclodextrin as chiral selector *Anal. Chim. Acta* 555 (2006): 63-67.

172. Poon YF, Muderawan IW, Ng SC, Synthesis and application of mono-2(A)-azido-2(A)-deoxyperphenylcarbamoylated beta-cyclodextrin and mono-2(A)-azido-2(A)-deoxyperacetylated beta-cyclodextrin as chiral stationary phases for high-performance liquid chromatography, *Journal of Chromatography A*, 1101 (2006): 185-197.

Patents

1. Sim KY, O L Kon, S C Ng, N Srikanth and C C Teo "2-Benzyl-3-arylbenzofurans as antitumour and hypocholesterolemic agents", US Pat. No. 5,459,139 (**Granted July 1995)**

2. Ng SC, LF Zhang and CB Ching "Separating materials for chromatography and electrophoresis applications comprising regiodefined functionalized cyclodextrins chemically bonded to a support via urethane functionalities", Singapore Patent No. 69210 (**Granted August 2000**).

3. Ng SC, LF Zhang and CB Ching "Separating materials for chromatography and electrophoresis applications comprising regiodefined functionalized cyclodextrins chemically bonded to a support via urethane functionalities", US Pat. No. 6,017,458 (**Granted Jan 2000**).

4. Ng SC, LF Zhang and CB Ching "Separating materials for chromatography and electrophoresis applications comprising regiodefined functionalized cyclodextrins chemically bonded to a support via urethane functionalities" US Pat (divisional) No. 6,296,768 (**Granted Oct 2001**).

5. Ng SC, CB Ching, LF Zhang and L Chen "Materials Comprising Saccharide Cross-Linked And Chemically Bonded to a Support Via Urea Linkages Useful For Chromatography and Electrophoresis Applications", PCT Appl. No. PCT/SG01/00130, Appl. Date: 22 Jun 2001.

6. Lim TW, SC Ng, HSO Chan, S. Chooi and MS Zhou "Novel poly(arylene ether) dielectrics" Submitted for patent filing by Chartered Semiconductor Manufacturing (S) Pte. Ltd. [CS01-075; Jan 2002].

7. Ng SC, CB Ching, LF Zhang and L Chen "Materials Comprising Saccharide Cross-Linked And Chemically Bonded to a Support Via Urea Linkages Useful For Chromatography and Electrophoresis Applications", Singapore Patent, Appl. No. 200004213-5, Filling Date: 23 Jun 2000.

8. Ng SC, CB Ching, LF Zhang and L Chen "Materials Comprising Saccharide Cross-Linked And Chemically Bonded to a Support Via Urea Linkages Useful For Chromatography and Electrophoresis Applications", US Patent No. 6,720,285. (**Granted Apr 2004**).

9. Ng SC, CB Ching, LF Zhang and L Chen "Materials Comprising Polymers or Oligomers of Saccharides Chemically Bonded to a Support Useful for Chromatography and Electrophoresis Applications", US Patent, Appl No. 10/054,162, Filling Date: 18 Jan 2002.

10. Ng SC, CB Ching, TT Ong, W Mulderawan and DJ Young "Novel Chiral Ionic Compounds Based on Functionalized Cyclodextrins" PCT Appl. No. PCT/SG2004/000413, Appl. Date: 15 Dec 2004.

11. Ng SC, CB Ching, TT Ong, W Mulderawan and DJ Young "Cationic Polymer of a Saccharide for Resolving Enantiomers", US Patent, Appl No. 60/529,112; Appl. Date: 15 Dec 2004.

12. Lim, C, SC Ng, HSO Chan and S Chooi " Poly(arylene ether) Dielectrics" US Patent No. 6,846,899. (**Granted Jan 2005**).

Invited or Plenary Lectures/ Seminars/ Conference

1. **Invited lecture** to 4th Pacific Polymer Conference was held in Kauai, Hawaii during 12-16 December 1995..

2. **Invited lecture** to 5th Pacific Polymer Conference, 26-30 Oct 97, Kongju, Korea on the topic of "Novel synthetic methodology for conjugated polymers".

3. **Invited lecture** to 6th Pacific Polymer Conference, 7-11 Dec 99, Guanzhou, China on the topic of "Functional Conjugated polymers: Novel synthesis and applications".

4. **Invited lecture** to 14th International Conference on the Chemistry of the Organic Solid State (ICCOSS XIV) hosted by the University of Cambridge/Robinson College (July 25 to July 30, 1999). Other invited speakers have included amongst many distinguished materials related scientists Prof J.-M. Lehn (Nobel Laureate 1988) Insitut des sciences et d'ingenierie , supramoleculaire, Strasbourg, France and Prof (Sir) J. M. Thomas, FRS Headmaster of Peterhouse College Cambridge.

5. **Invited lecture** at the 5th International Symposium on Organometal, Metal Complexes and Catalysis, 21-24 August 2000, Baoding, China.

6. **Plenary Lecture**: 2nd Symposium on challenges in novel separation & purification, 23-24 May 2002. Hosted by Tsinghua University at the Friendship Hotel, Beijing, China on the topic "Development of novel chiral stationary phases for HPLC".

7. **Invited Paper**. An invitation to contribute an article in Microporous & Mesoporous Materials. Invitation letter received on 11 Sep 2002.

8. **Invited seminar** at the Shanghai Institute of Organic Chemistry (SIOC) entitled "Novel Stationary Phases for Enantioseparations" on 14 October 2003.

9. **Invited seminar** at the Dalian Institute of Chemical Physics and establishment of mutual research collaborations. **Delivered lecture on "Chiral Technology" on 16 October 2003.**

10. **Invited seminar** at the Indian Institute of Technology Bombay entitled "Novel Chiral Stationary Phases for Analytical & Preparative Enantioseparation of Racemates" on 07 Nov 2003.

11. **Invited lecture** to 8th Pacific Polymer Conference, 24-27 Nov 03 in Bangkok, Thailand.

12. **Invited seminar** entitled "Chiral Separations" at University of Malaya on 16 January 2004. The seminar was also organized by the **Ministry of Science and Technology, Malaysia**.

13. **Invited seminar** entitled "Novel Chiral Stationary Phases for Chromatographic Enantioseparation of Racemates" at the Institute of Bioengineering and Nanotechnology (IBN) by their Executive Director Prof Jackie Ying on 05 Feb 2004.

14. **Invited lecture** to the specialty "Pharmaceutical Engineering" course at Hong Kong University of Science and Technology (HKUST) on 18 February 2004 under the sub-topic of "Enantioselective Separations".

15. **Invited seminar** entitled "Chiral Enabling Technologies for Analytical, Preparative & Process Enantioseparations" at the Hong Kong Polytechnic University **Delivered on 19 February 2004.**

List of Graduate Student's Research Project Dissertations

Summary: Total: Graduate students 44 (awarded 36);
PhD 24 (awarded 18); MSc 20 (awarded 18)

Ph.D. Doctoral Dissertations (Awarded)

1. Srikanth Natarajan, "Synthesis of potential antitumour and hypocholesterolemic compounds" (Registered 1992); PhD (**Awarded 1995**)

2. Lim Bee Gim, "Separation of optical isomers for pharmaceutical applications" (Registered 1991); PhD (**1995**)

3 Seow Swee How, "Synthesis, characterisation and applications of Regioregular Conducting Polymers". (Registered 1993); PhD (**1999**)

4. Xie Yang, "Thienyl complexes of palladium and their catalytic properties". (Registered 1995); PhD (**1999**)

5. Chen Banglin, "Synthesis and characterization of thiophene derivatives and their metal complexes". (Registered 1996); PhD (**1999**)

6. Miao Ping, "Functionalized polybithienylene-5,5'-diyl incorporating sulfur contain pendant: Their syntheses, characterization and application aspects". (Registered 1995); PhD (**2000**)

7. Wong Mei Ling Pauline, "Self-doping, water-soluble conducting polyanilines" (Registered 1995); PhD (**2000**)

8 Xu Jingmei, "Novel fluorescent polymers containing alternating phenylene and functionalised thienylene/ bithienylene repeating units: A study on structure-property correlation". (Registered 1995); PhD (**2000**)

9 Xu Lingge, "Functional polymers based on aniline derivatives" (Registered 1995); PhD (**2000**)

10 Lu Hongfang, "Functional materials based on polyhetroarylenes and their applications in PLED". (Registered 1997); PhD (**2002**)

11 Ong Teng Teng,"Novel materials incorporating heteroaromatic moeties in the polymer backbone" (Registered 1995); PhD (**2002**)

12 Chen Lei, "Novel Chiral Stationary Phases (CSP) for Enantioseparation Processes" (Registered 1997); PhD (**2003**)

13 Zhang Chunyan, "Electrochemical syntheses and self-assembly of nanostructure as modified electrodes for poythiophene preparation". (Registered 1998) PhD (**2003**)

14 Sun Tong, "Chiral discrimination of self-assembled monolayers of functionalize β-cyclodextrins by Quartz Crystal Microbalance". (Registered 1998); PhD (**2004**).

15 Ma Yifei, "Synthesis and characterisation of poly[3-(ω-bromoalkyl)thiophenes] and its copolymers" (Registered 1998); PhD (**2005**)

16 Lai Xianghua, "Development of Chiral Stationary Phases for HPLC based on selectively modified cyclodextrins" (Registered 2001); PhD (**2004**)

17 Lo Mee Yun, "Novel Chiral Stationary Phase for Enantioseparations" (Registered 2001) PhD (**2005**).

18 Poon Yin Fun, "Enantioseparation of Chiral Drugs by HPLC" (Registered 2001) PhD (**2006**).

PhD Dissertation Supervision - Ongoing

1 Wong Yeang Chyn, "Functional polythiophenes: Novel syntheses approaches, characterization and application aspects". (Registered1998). Submitted Thesis

2 Lee Teck Chia, "Development and Design of Chiral Separation Materials" (Registered 2001) Completed experimental work; drafting thesis.

3 Zhang Sheng, "Development of Novel Chiral Stationary Phases for HPLC based on Covalently Bonded Polysaccharide Derivatives" (Registered 2003)

4 Mira Larissa, "Chiral Separation Materials for Analytical and Preparative Enantioseparations" (Registered 2006)

5 Lu Yong, "Functional Materials for Organic and Polymer Electronic Devices" (Registered 2006)

6 Wang Renqi, "Aspects of Enantioseparation Processes" (Registered 2006)

M.Sc. Dissertations (Awarded)

1 Fang Zhigang, "Synthesis and structures of sulphido carbonyl clusters and their substitution reactions with 1,1'-bis(diphenyl phosphino) ferrocene". (Registered 1992); MSc (**Awarded 1994**).

2 Zhu Ji, "Synthesis of Non-Steroidal antiestrogens". (Registered 1992); MSc (**1995**).

3 Wang Li, "Synthesis and Electronic Structure of Heterocyclic Compounds" (Registered 1994); MSc (**1997**)

4 Jin Shengxi, "Synthesis and electronic structure of furan derivatives". (Registered 1992); MSc (**1998**)

5 Xia Junfeng, "Novel conducting homopolymers and graft copolymers based on pyrrole". (Registered 1995); MSc (**1998**)

6 Meng Hong, "Synthesis and characterization of new conjugated functional polymers." (Registered 1995); MSc (**1999**)

7 You Xiaomei, "Synthesis and electronic structure study of novel heterocyclic compounds" (Registered 1996); MSc (**1999**)

8 Ding Mei, "Functional materials from polyheteroarylenes" (Registered 1996); MSc (**2000**)

9 Fu Ping, "Functionalised polythiophenes: Their syntheses, characterization and application aspects". (Registered 1996); MSc (**2000**)

10 Huang Qiong, "Chiral stationary phases for separation of organohalogen compounds". (Registered 1998); MSc (**2001**)

11 Lim Teck Wee Christopher, "Synthesis and Characterisation of Low Dielectric Materials". (Registered 1998); MSc (**2001**)

12 Chen Dizong, "Novel Fluorescent Polymers Containing Alternating Biphenylene and Thienylene/Bithienylene Repeating Units". (Registered 1998); MSc (**2002**).

13 Mok Lee Peng Jennifer, "Electrically conducting Grafted Copolymers of Poly(methyl methacrylate) and Polypyrrole". (Registered 1999); MSc (**2002**)

14 Rajasekharan Vishnu Vardhanan, "Polythiophene based diodes: Their electrochemical syntheses, characterization and evaluation". (Registered 1998) ; MSc (**2001**)

15 Wang Tao, "Functional Nanomaterials" (Registered 2001); MSc (**2004**)

16 Zhou Yong, "Development of Novel Stationary Phases" (Registered 2001); MSc (**2004**)

17 Lim Kwang Tze, “Novel Functional Materials for PLED Applications.” (Registered 2001); MSc (**2004**).

18 Pan Xiao Yong, “Novel Fluorescent Fluorenyl/Carbazolyl-Pyridinyl Alternating Copolymers: Synthesis, Characterization and Properties” (Registered 2002); MSc (**2005**).

MSc Dissertation Supervision - Ongoing

1. Pang Kwok Hwa Jeffrey, “Synthesis and Applications of Novel Cyclodextrin-based Ionic Liquids” (Registered 2003).

2. Xu Changhua, “Chiral Sensors of Functionalized β-, α-, γ-Cyclodextrins by Quartz Crystal Microbalance” (Registered 2004).