

# Publication List of Professor Wen-Cheng J. Wei update: 4/2023

## (A) 期刊論文(International Journal)(<sup>#</sup> the corresponding author)

1. T. Y. Yang, C. Chiu, W. C. J. Wei,<sup>#</sup> 2021, "Sintering and electric conductivity of (Fe, Mn, Sm) co-doped CeO<sub>2-δ</sub>" *J. Ceram. Proc. Res.*, 22[5] (2021) 490-498
2. Y. T. Huang, W. C. J. Wei,<sup>#</sup> A. B. Wang, 2021, "Kinematic behavior of melted glass for hot-extrusion," *J. Ceram. Proc. Res.*, 22 [3] (2021) 264-275
3. H. Y. Huang, C. Y. Huang, K. H. Lee, Y. C. Chang, W. C. J. Wei,<sup>#</sup> 2020, "Feasibility analysis for power generation from a lab-made intermediate temperature-solid oxide fuel cell using liquid alcohol fuels," *Innov. Energy & Research*, 9[5], (2020) 1000239
4. Y. C. Lin, W. C. J. Wei,<sup>#</sup> 2020, "Porous Cu-Ni-YSZ cements using CH<sub>4</sub> fuel for SOFC," *Intern. J. Hydrogen Energy*, 45(2020) 24253-24262
5. Y. Y. Chen<sup>#</sup>, Y. W. Bai, W. C. J. Wei, 2020, "Analysis of structural effects on coloring mechanism of Ru-celadon porcelain," *Int. J. Ceram. Eng. Sci.*, 2(2020) 177-186
6. Y. L. Ru, J. K. Sang, C. G. Xia, W. C. J. Wei, W. B. Guan,<sup>#</sup> 2020, "Durability of direct internal reforming of methanol as fuel for solid oxide fuel cell with double-sided cathodes," *Int. J. Hydrogen Energy*, 45[11] (2020) 7069-7076, <https://doi.org/10.1016/j.ijhydene.2019.12.222>
7. Y. Y. Chen, S. B. Hung, C. J. Wang, W. C. Wei, J. W. Lee<sup>#</sup>, 2019, "High temperature electrical properties and oxidation resistance of V-Nb-Mo-Ta-W high entropy alloy thin film," *Surf. Coating Tech.*, 375 (2019) 854-863, DOI: 10.1016/j.surfcoat.2019.07.080
8. L. D. Liu, Y. H. Cheng and W. C. J. Wei<sup>#</sup>, 2019, "Processing of high conductive Bi<sub>2</sub>O<sub>3</sub>/8YSZ composites as SOFC electrolyte, *J. Ceram. Proc. Res.*, 20[4], 347-356 (2019)
9. Y. H. Cheng, W. C. J. Wei,<sup>#</sup> 2019, "Synthesis of (Bi, Mn, Fe)-doped ceria electrolytes by low-temperature processes," *J. Ceram. Proc. Res.* 20[2], 198-203 (2019)
10. Y. H. Cheng, Y. Y. Chen, W. C. J. Wei,<sup>#</sup> 2018, "Sublimation and high-temperature stability of SnO<sub>2</sub>-doped Bi<sub>2</sub>O<sub>3</sub> ionic materials in controlled atmosphere," *J. Ceram. Proc. Res.* 19[5], 388-393 (2018)
11. D. Wang, W. C. J. Wei,<sup>#</sup> 2018, "Thin 8 mol% yttria stabilized zirconia interlayer for intermediate-temperature solid oxide fuel cells," *J. Ceram. Proc. Res.*, 19[3], 198-205 (2017)
12. N. C. Fan, Y. Y. Chen, K. Y. Chen, W. C. J. Wei,<sup>#</sup> B. H. Liu, A. B. Wang, R. C. Luo, 2017, "Porous Al<sub>2</sub>O<sub>3</sub> catalyst carrier by 3D additive manufacturing for syngas reforming," *J. Ceram. Proc. Res.*, 18[9], 676-682 (2017)
13. S. Y. Ke, Y. Y. Chen, W. C. J. Wei,<sup>#</sup> 2017, "Gasification and syngas reforming of city waste papers for solid oxide fuel cells," *Innov. Energy & Research*, 6[2], 1000171 (2017)
14. K. Y. Chen, Y. Y. Chen, W. C. J. Wei,<sup>#</sup> 2017, "Reforming and desulphurization of syngas by 3D-printed catalyst carriers," *Innov. Energy & Research*, 6[2], 1000172 (2017)
15. W. C. J. Wei,<sup>#</sup> D. R. Huang, D. Wang, 2016, "(Bi, Sr)(Fe<sub>1-x</sub>M<sub>x</sub>)O<sub>3-δ</sub> (M=Co, Ni and Mn) cathode materials with mixed electro-ionic conductivity," *Materials* 9, 922 (2016); doi 10.3390/ma911092
16. Y. W. Lai and W. C. J. Wei,<sup>#</sup> 2016, "Synthesis and study on ionic conductive (Bi<sub>1-x</sub>V<sub>x</sub>)O<sub>1.5-δ</sub> materials with a dual-phase microstructure," *Materials* 9, 863 (2016); doi:10.3390/ma9110863
17. Y. L. Kuo<sup>#</sup>, S. E. Lin, W. C. J. Wei, Y. M. Su, 2016, "Sputter-deposited 20 mol% gadolinia-doped ceria films on 8 mol% yttria-stabilized zirconia tapes for improved electrochemical performance," *Thin Solid Films*, 618 Part A (2016) 202-206
18. C. W. Huang,<sup>#</sup> B. T. Chen, K. Y. Chen, C. H. Hsueh, W. C. J. Wei, C. T. Lee, 2015, "Finite element analysis and design of thermal-mechanical stresses in multilayer ceramic capacitors," *Int. J. Applied Ceramic Tech.*, 12[2] 451-460 (2015) DOI: 10.1111/ijac.12176
19. Wen-Cheng J. Wei,<sup>#</sup> J. W. Halloran, 2014, "Durable carbon for structure applications, H<sub>2</sub>-energy carbon building materials (HECBM)," *Adv. Mat. Res.*, 919-921 (2014) 1771-1774 (NSC-102-2221-E-002-061-MY2)
20. W. C. J. Wei,<sup>#</sup> 2014, "Conductivity analysis on hetero-junction of multiple nano-structural layer," *Key Eng. Mat.* 573 (2014) 13-17 (NSC101-2221-E002-090-MY2)
21. K. Y. Chen, C. W. Huang, M. Wu, W. C. J. Wei, C. H. Hsueh<sup>#</sup>, 2014, "Advanced characterization of mechanical properties of multilayer ceramic capacitors," *J. Mat. Sci.: Mat. in Electronics*, 25 (2014) 627-634
22. K. Y. Chen, C.W. Huang, M. Wu, W. C. J. Wei, C. H. Hsueh,<sup>#</sup> 2013, "Control of stress

- concentration in surface-mounted multilayer ceramic capacitor subjected to bending," J. Am. Ceram. Soc., 97[4] (2013) 1170-1176, DOI:10.1111/jace.12781
23. S. E. Lin, W. C. J. Wei,<sup>#</sup> 2012, "Preparation of porous  $M_2O_3$ -doped ceria spherical particles by controlled precipitation," J. Ceramic Proc. Res., 13 (2012) 744-750
  24. L. Xu, Y. Guo, D. Jia, Q. J. Zhou,<sup>#</sup> Y. Li, W. C. J. Wei, 2012, " $La_{0.6}Sr_{0.4}Fe_{0.8}Cu_{0.2}O_{3-\delta}$  perovskite oxide as cathode for IT-SOFC," Intern. J. Hydrogen Energy, 37 (2012) 11963-11968, NSC99-2221-E-002-133-MY2
  25. Q. J. Zhou, W. C. J. Wei,<sup>#</sup>, Y. J. Guo, D. Jia, 2012, " $LaSrMnCoO_{5+\delta}$  as cathode for intermediate-temperature solid oxide fuel cells," Electrochim. Comm., 19 (2012) 36-38, NSC99- 2221-E-002-133-MY2
  26. W. C. J. Wei,<sup>#</sup> S. Y. Chuang, Y. C. Hu, H. Schneider, 2012, "Synthesis and electric conductivity of mullite-type  $Bi_2Al_4O_9$  and  $(Bi, Ca)_2Al_4O_9$  ceramics," Intern. J. Mat. Res., 103 (2012) 456-463, NSC97-2221-E-002-027-MY2
  27. S. E. Lin, Y. R. Cheng, and W. C. J. Wei,<sup>#</sup> 2012, "BaO-B<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> sealing glass for intermediate temperature solid oxide fuel cells," J. Non-Cryst. Solid, 358 (2012) 174-181
  28. W. C. J. Wei,<sup>#</sup> 2012, "Long-term electric conductivity of (Nb,Y)-doped  $Bi_2O_3$  solid electrolytes for solid oxide fuel cells," Adv. Mat. Res., 509 (2012) 111-113
  29. C. W. Huang, W. C. J. Wei, and C. S. Chen,<sup>#</sup> J. C. Chen, 2011, "Atomic simulation of ionic conductivity process of oxygen in  $Ce_{1-x}M_xO_{2-x/2}$ ," J. Europ. Ceram. Soc., 31 (2011) 3159-69
  30. T. C. Kuo, Y. L. Kuo and W. C. J. Wei,<sup>#</sup> 2011, "Synthesis and study on the phase diagram of 1-10 mol%  $SnO_2$ -doped  $Bi_2O_3$  solid electrolyte," J. Europ. Ceram. Soc., 31 (2011) 3153-58, NSC-98-2811-E-002-062
  31. Y. L. Kuo<sup>#</sup>, L. D. Liu, S. E. Lin, C. H. Chou, and W. C. J. Wei, 2011, "Assessment of structurally stable cubic  $Bi_{12}TiO_{20}$  as intermediate temperature solid oxide fuel cells electrolyte," J. Europ. Ceram. Soc., 31 (2011) 3119-26
  32. T. Chou, L. D. Liu, and W. C. J. Wei,<sup>#</sup> 2011, "Phase stability and electric conductivity of  $Er_2O_3$ - $Nb_2O_5$  co-doped  $Bi_2O_3$  electrolyte," J. Europ. Ceram. Soc., 31 (2011) 3087-94, NSC99-2221-E-002-113-MY2
  33. S. E. Lin and W. C. J. Wei,<sup>#</sup> 2011, "Long-term degradation of  $Ta_2O_5$ -doped  $Bi_2O_3$  system," J. Europ. Ceram. Soc., 31 (2011) 3081-86
  34. D. W. Liaw, C. Y. Tsai, W. C. J. Wei,<sup>#</sup> 2011, "Thermal insulation of muscovite/glass ceramic foam for solid oxide fuel cell," J. Power Source, 196, 19 (2011) 8012-8018, NSC-99-2221- E-002-133-MY2
  35. Y. W. Lo, W. C. J. Wei,<sup>#</sup> C. H. Hsueh, 2011, "Low thermal conductivity of porous  $Al_2O_3$  foams for SOFC insulation," Mat. Chem. Phy., 129 (2011) 326-330, NSC97-2221-E-002-027 -MY2
  36. S. E. Lin, Y. R. Cheng, W. C. J. Wei,<sup>#</sup> 2011, "Synthesis and long-term test of borosilicate-based sealing glass for solid oxide fuel cells," J. Europ. Ceram. Soc. 31 (2011) 1975-85, NSC96-2221- E-002-027-MY2 and NSC97-2221-E-002-027-MY2
  37. C. Y. S. Chang, W. C. J. Wei,<sup>#</sup>, C. H. Hsueh, 2011, "Indentation creep behavior of Ba-B-Si-Al-O glass at operation temperature of IT-SOFC," J. Non-Cryst. Solid, 357 (2011) 1414-1419, NSC97- 2221-E-002-027-MY2 and NSC96-2221-E-002-160-MY2
  38. S. E. Lin, Y.L. Kuo,<sup>#</sup> C. H. Chou and W. C. J. Wei, 2010, "Characterization of electrolyte films deposited by using RF magnetron sputtering a 20 mol% gadolinia-doped ceria target," Thin Solid Film, Vol. 518, 7229-7232 (2010)
  39. C. W. Huang, W. C. J. Wei,<sup>#</sup>, C. S. Chen, 2010, "Simulation of atomic-scale defects in the clustering and oxygen jumping process of 8 ml% yttria-stabilized zirconia," J. Ceram. Proc. Res., Vol. 11, No. 6, pp. 641~647(2010), NSC95-2221-E00-2117
  40. J. C. C. Lin and W. C. J. Wei,<sup>#</sup> C. Y. Huang, 2010, "Sintering behavior and dielectric properties of yttria/silica coated  $BaTiO_3$  material with Mn-Si-O glass," J. Am. Ceram. Soc., 93[12] 4103-09 (2010), 97-EC-1-A-08-S1-107
  41. J. C. C. Lin and W. C. J. Wei,<sup>#</sup> 2010, "Low-temperature sintering of  $BaTiO_3$  with Mn-Si-O glass," J. Electroceramics, 25[2] (2010) 179-187, NSC94-2216-E-002-020 and 97-EC-1-A-08-S1-107
  42. C.-H. Weng and W. C. J. Wei,<sup>#</sup> 2010 "Synthesis and electric conductivity of homogeneous niobium-doped bismuth oxide," J. Am. Ceram. Soc., 93 [10] 3124-3129 (2010), NSC-96-2221- 1- 002-MY2
  43. C. H. Hsueh,<sup>#</sup> W. C. J. Wei, 2010, "Effective viscosity of semidilute suspensions of rigid ellipsoids," J. Applied Physics, 107, 024905 (2010) NSC96-2811-E-002-022

44. C.-H. Weng, W. C. J. Wei,<sup>#</sup> 2009, "Y-doped bismuth niobate ( $\text{Bi}_{0.79}\text{Nb}_{0.21}\text{O}_{1.71}$ ) electrolytes for SOFC," Proceeding of Solid Oxide Fuel Cells, J. Am. Ceram. Soc., 10/2009
45. G. G. Gan, W. C. J. Wei,<sup>#</sup> 2009, "Synthesis and dielectric properties of niobia coating on  $\text{BaTiO}_3$ ," *Int. J. Appl. Ceram. Technol.*, 6[6] 661-670 (2009) NSC93-2120-M002-011
46. J. Y. Yu, W. C. J. Wei,<sup>#</sup> S. E. Lin, J. M. Sung, 2009, "Synthesis and characterization of cerium oxide fibers," *Mat. Chem. Phys.*, 118 (2009) 410-416, NSC95-2221-E-117-MY2
47. C. C. Lin, W. C. J. Wei,<sup>#</sup> C. Y. Su, C. H. Hsueh, 2009, "Oxidation of Ni electrode in  $\text{BaTO}_3$  based multi-layer ceramic capacitor (MLCC)," *J. Alloys and Compounds*, 485 (2009) 653-659, TLIRI, 89-S-A22
48. J. C. C. Lin and W. C. J. Wei,<sup>#</sup> 2009, "Melting and interface reaction of Mn-Si-O glass on  $\text{BaTiO}_3$ ," *J. Am. Ceram. Soc.* 92[9] 1926-1933 (2009)
49. C. H. Hsueh<sup>#</sup> and W. C. J. Wei, 2009, "Analysis of effective viscosity of suspension with deformable polydispersed sphere," *J. Phys. D: Appl. Phys.*, 42, 075503 (2009), NSC96-2811-R-002-022
50. H. Y. Hsieh, S. E. Lin, W. C. J. Wei,<sup>#</sup> 2009, "Synthesis and characterization of Mn-Zn<sub>2</sub>SiO<sub>4</sub>/SiO<sub>2</sub> phosphor particles in core-shell structure," *J. Luminescence*, 129 (2009) 595-598, NSC95-2120-M-002-001
51. C. H. Hsueh<sup>#</sup>, W. H. Tuan, W. C. J. Wei, 2009, "Analysis of steady-state interface fracture of elastic multi-layered beams under four-point bending," *Script. Mat.*, 60 (2009) 721-724, NSC96-2811-E-002-022
52. S. E. Lin, B. Y. Yu, J. J. Shuye, W. C. J. Wei,<sup>#</sup> 2008, "Photoluminescence and microstructure investigation of  $\text{SiO}_2@Y$ :Eu photonic bandgap crystals," *J. Am. Ceram. Soc.*, 91[12] (2008) 3976-80, NSC95-2120-M-002-001
53. W. C. J. Wei,<sup>#</sup> 2008, "Sealing glass-ceramics for solid oxide fuel cell," *Recent Patents on Mat. Sci.*, Vol. 1, (2008) 217-222, NSC96-2221-E-002-160-MY2
54. W. C. J. Wei,<sup>#</sup> 2008, "Development of micro-solid oxide fuel cells (micro-SOFCs)," *Adv. Mat. Res.*, Vol. 51 (2008) 111-115, NSC96-2221-E-002-160-MY2
55. C. Y. S. Chang, W. C. J. Wei,<sup>#</sup> 2008, "Silver diffusion in La-Si-B-O-M glass ceramics controlled by interfacial pitting," *Eng. Mat. III, Adv. Mat. Res.*, Vol. 51 (2008) 117-124
56. C. W. Huang, M. T. Weng, W. C. J. Wei,<sup>#</sup> 2008, "Contact wear of low-zirconia toughened alumina (ZTA) produced by a colloidal process," *J. Ceram. Process Research*, 9[3] 221-223 (2008), NSC89-2216-E-002-001
57. C. J. Lin, W. J. Wei,<sup>#</sup> 2008, "Microstructural development of nano-Mo in  $\text{Al}_2\text{O}_3$  composite via MOCVI and densification processes," *Mat. Chem. Phy.*, 111 (2008) 82-86, NSC96-2221 -E-002-160-MY2
58. C. C. Chiang, S. F. Wang,<sup>#</sup> Y. R. Wang, W. C. J. Wei, 2008 "Densification and microwave dielectric properties of  $\text{CaO}-\text{B}_2\text{O}_3-\text{SiO}_2$  system glass-ceramics," *Ceram. Int.*, 34 (2008) 599-604, NSC94-2216-E-027-006
59. S. E. Lin, W. C. J. Wei,<sup>#</sup> 2008, "Synthesis and Investigation of sub-micron spherical indium oxide particles," *J. Am. Ceram. Soc.*, 91[4] (2008) 1121-1128, NSC95-2120-M002-001
60. B. Y. Yu, W. C. J. Wei,<sup>#</sup> 2008, "Growth of tabular  $\alpha$ - $\text{Al}_2\text{O}_3$  grains on porous alumina substrate," *J. Am. Ceram. Soc.*, 91[2] (2008) 595-598, NSC87-2622-E-002-014
61. J. C. Chen, C. S. Chen<sup>#</sup>, H. Schneider, C. C. Chou, W. C. J. Wei, 2008, "Atomistic calculations of lattice constants of mullite with its compositions," *J. Europ. Ceram. Soc.*, 28 (2008) 345-351, NSC94-2218-E-002-062
62. Y. J. Chen, Y. P. Chen and W. J. Wei,<sup>#</sup> 2007, "Glass-forming ability, interface Joint strength and thermal properties of sealing glasses for SOFC," *Key Eng. Mat.*, vols. 353-358 (2007) pp. 1536-1539, NSC95-2221-E-002-161
63. M. T. Weng, W. C. J. Wei,<sup>#</sup> C. Y. Huang, 2007, "Influence of 3Y-TZP on microstructure and mechanical properties of  $\text{Al}_2\text{O}_3$ -based composite," *Key Eng. Mat.*, vols. 353-358 (2007) pp. 1540-1543, 92-EC-17-A-08-S1-023
64. H. Y. Chen, W. C. J. Wei,<sup>#</sup> K. C. Hsu, C. S. Chen, 2007, "Adsorption of PAA on the  $\alpha$ - $\text{Al}_2\text{O}_3$  surface," *J. Am. Ceram. Soc.*, 90[6] 1709-1716 (2007), NSC93-2120-M-002-011
65. M. T. Weng, W. C. J. Wei,<sup>#</sup> 2007, "Homogeneity of aqueous  $\text{Al}_2\text{O}_3$ /3Y-TZP feedstock by plastic kneading," *Key Engineering Materials*, Vol. 336-338 (2007) pp. 1127-1129
66. Y. J. Chen, W. C. J. Wei,<sup>#</sup> 2007, "Investigation of YSZ thin films on silicon wafer and  $\text{NiO}/\text{YSZ}$

- deposited by ion beam sputtering deposition (IBSD)," Key Engineering Materials, Vol. 336-338 (2007) pp. 1788-1790
67. J. M. Sung, S. E. Lin, W. C. Wei,<sup>#</sup> 2007, "Synthesis and reaction kinetics for monodispersive  $\text{Y}_2\text{O}_3:\text{Tb}^{3+}$  spherical phosphor particles," J. Europ. Ceram. Soc., 27(2007) 2605-2611, NSC93-2120-M-002-011
  68. J. M. Sung, S. E. Lin, W. C. J. Wei,<sup>#</sup> 2007, "Preparation and characterization of cerium hydrate fiber," Key Engineering Materials, Vol. 336-338 (2007) pp. 2182-2185
  69. C. C. Lin, W. C. J. Wei,<sup>#</sup> 2007, "Sintering Kinetic of fine  $\alpha$ -alumina powder with  $\text{ZrO}_2$  impurity," Key Engineering Materials, Vol. 336-338 (2007) pp. 2357-2360
  70. T. Y. Wu, W.C.J. Wei,<sup>#</sup> 2006, "Transformation kinetics of  $\text{Ba}_2\text{Ti}_9\text{O}_{20}$  with  $\text{ZrO}_2$  additive" J. Am. Ceram. Soc., 89[12] 3846-3849, NSC92-2216-E-002-026
  71. C. H. Meng, W.C.J. Wei,<sup>#</sup> J. Shieh, C. S. Chen, 2006, "Colloidal processing of  $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$  targets part II – Effect of  $\text{NbO}_{2.5}$  additive," J. Ceram. Proc. Res., Vol. 7 [4], 281-287, NSC93-2218-E-002-114
  72. W. T. Hsu, B. Y. Yu, W.C.J. Wei,<sup>#</sup> 2006, "Colloidal processing of  $\text{Pb}(\text{Zr},\text{Ti})\text{O}_3$ , Part I-Pb dissolution," J. Ceramic Process Research, Vol. 7[3], 206-210 (2006) NSC89-2216-E-002-043
  73. S.-E. Lin, K. Borgohain, W.C. J. Wei,<sup>#</sup>, 2006, "Praseodymium doped Photo-luminescent Strontium Indate Nano-particles by Ultrasonic Spray Pyrolysis," J. Am. Ceram. Soc., 89 [10] 3266-3269 (2006), NSC 93-2120-M-002-011
  74. J. F. Li, C. S. Chen<sup>#</sup>, B. Y. Yu, W. C. J. Wei, 2006, "Simulation of colloidal particle packing for photonic bandgap crystals," J. Am. Ceram. Soc., 89[4] (2006) 1257-1265
  75. H. T. Lin, W. S. Huang, S.C. Wang, H. H. Lu, W. C. J. Wei, J. R. Huang,<sup>#</sup> 2006, "Investigation of chromium carbide/alumina nano-composite prepared via MOCVD in fluidized bed and densification process," Mat. Sci. Eng. B 127 (2006) 22-28, NSC92-2216-E-006-011
  76. W.C.J. Wei,<sup>#</sup> B. Y. Yu, J. F. Li and C. S. Chen, (invited), 2006, "Controlled nano-oxide layer coating on fine particles with multiple optical-electrical function," Key Eng. Mat., 313, pp. 37-42, NSC93-2120-M-002-011
  77. S. E. Lin, W.C.J. Wei,<sup>#</sup> 2006, "Synthesis and growth kinetics of monodispersive indium hydrate particles," J. Am. Ceram. Soc., 89[2], 527-533, NSC93-2120-M-002-011
  78. C. K. Huang,<sup>#</sup> S. W. Chen, W. C. J. Wei, 2006, "Processing and Property improvement of polymeric composites with added  $\text{ZnO}$  nanoparticles through microinjection molding," J. Appl. Polymer Sci., (2006) Vol. 102, 6009-6016, NSC93-2212-E-262-004
  79. S. Y. Yang, C. K. Huang,<sup>#</sup> B. C. Lin, W. C. J. Wei, 2006, "Kneading and molding of ceramic micro-parts by precision powder injection moulding (PIM) Process" J. Appl. Polym. Sci., Vol.100, (2006) p.892-899, April (2006)
  80. K. L. Ying, K. C. Hsu,<sup>#</sup> W. C. J. Wei, 2006, "An amphoteric water-soluble copolymer: II. Effect of its molecular weight on the dispersion of barium titanate in Water," J. Appl. Polym. Sci., Vol. 100, (2006) 886-891, NSC92-2211-E-003-001
  81. Y. Y. Chen, W. J. Wei,<sup>#</sup> 2006, "Processing and characterization of ultra-thin yttria stabilized zirconia (YSZ) electrolytic film for SOFC," Solid State Ionics, 177, [3-4] (2006) pp. 351-357, NSC92-2212-E-002-097 and the NSC-DAAD summer program of 2002
  82. C. L. Chen, W. J. Wei,<sup>#</sup> A. Roosen, 2006, "Crystallization kinetics of  $\text{La}_2\text{O}_3\text{-Al}_2\text{O}_3\text{-B}_2\text{O}_3$  glass ceramic composites," J. Europ. Ceram. Soc., 26 (2006) 3325-34, PPP (0910044476) in Germany and NSC92-2911-I-002-011
  83. C. L. Chen, W. J. Wei,<sup>#</sup> S. F. Wang, 2006, "Process and Property characterization of La-Al-B-O/ $\text{Al}_2\text{O}_3$  glass ceramic composites," J. Ceram. Proc. Res. Vol. 7, 24-30 (2006) , NSC92-2911-002-011
  84. C. L. Chen, W. C. J. Wei,<sup>#</sup> A. Roosen, 2006, "Wetting, densification and phase transformation of  $\text{La}_2\text{O}_3/\text{Al}_2\text{O}_3/\text{B}_2\text{O}_3$  based glass-ceramics," J. Europ. Ceram. Soc., 26 (2006) 59-65, NSC92-2911-I-002-011, PPP-0910044476
  85. H. T. Lin, J. L. Huang,<sup>#</sup> W. T. Lo, W. J Wei, 2005, "Investigation on carbonizing behaviors of nanometer-sized  $\text{Cr}_2\text{O}_3$  particles dispersed on alumina particles by MOCVD in fluidized bed," J. Mat. Res., 20[8] 2154-2160
  86. W. J Wei,<sup>#</sup> S. D. Tze, H. C. Liaw, 2005, "Calcium Aluminate Composites with Controlled Duplex Structures: I. Hydration Reaction and Densification, "J. Ceram. Proc. Res., 6[3] 223-229

87. H. J. Liaw, W. J. Wei,<sup>#</sup> 2005, "Calcium aluminate composites with controlled duplex structure: II. Microstructural development and mechanical properties," *J. Ceram. Proc. Res.*, 6[3] 230-235
88. B. Y. Yu, W. J. Wei,<sup>#</sup> 2005, "Defects of base metal electrode layers in multi-layer ceramic capacitor (MLCC)," *J. Am. Ceram. Soc.*, 88[8] 2328-2331
89. R. Y. Wu, W. J. Wei,<sup>#</sup> 2005, "De-agglomeration kinetics of feedstocks with granule TZP powder," *J. Am. Ceram. Soc.*, 88[7] 1734-39 (2005), 92BA0041
90. K. C. Hsu, K. L. Ying, L. P. Chen, , B. Y. Yu, W. J. Wei,<sup>#</sup> 2005, "Dispersive properties of BaTiO<sub>3</sub> colloids with amphoteric polyelectrolytes" *J. Am. Ceram. Soc.*, 88[3]524-529 (2005) NSC89- 2211-E-003-003
91. C. L. Chen, W. H. Lee, W. C. J. Wei,<sup>#</sup> 2005, "Sintering behavior and interfacial analysis of Ni/Cu electrode with BaTiO<sub>3</sub> particulates," *J. Electroceramics*, 14, 25-36 (2005) NSC92-2212- E002-097, SCI
92. W. C. J. Wei,<sup>#</sup> C. L. Chen, A. Roosen, 2005, "La<sub>2</sub>O<sub>3</sub>/Al<sub>2</sub>O<sub>3</sub>/B<sub>2</sub>O<sub>3</sub> based glass-ceramics for LTCC application," *Key Engineering Materials*, Vol. 280-283, pp. 929-934 (2005)
93. Y. H. A. Lee, W. C. J. Wei,<sup>#</sup> 2005 "Processing and characterization of La<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-B<sub>2</sub>O<sub>3</sub> (LSB) based glass-ceramics for LTCC application," *Key Engineering Materials*, Vol. 280-283, pp. 935-940 (2005)
94. S. E. Lin, W. C. J. Wei,<sup>#</sup> 2005, "Synthesis and characterization of monodispersing In<sub>2</sub>O<sub>3</sub> particles," *Key Engineering Materials*, Vol. 280-283, pp. 499-504(2005)
95. R. Y. Wu, W. J. Wei,<sup>#</sup> 2004, "Dispersive and rheological properties of Mg-PSZ feedstocks for precision powder injection moulding," *J. Ceram. Proc. Res.*, Vol. 5. No. 3, pp. 274-280 (2004), 92BA0041
96. R. Y. Wu, W. J. Wei,<sup>#</sup> 2004, "Kneading behavior and homogeneity of zirconia feedstocks for micro-injection molding," *J. Europ. Ceram. Soc.*, 24 (2004) pp. 3653-62, 92BA0041
97. H. J. Cho, W. J. Wei,<sup>#</sup> H. C. Kao, C. K. Cheng, 2004, "Wear behavior of UHMWPE sliding on artificial hip arthroplasty materials," *Mat. Chem. Phys.* , 88, page 9-16 (2004)
98. E. Volz, A. Roosen,<sup>#</sup> S. C. Wang, W. J. Wei, 2004, "Formation of intergranular amorphous films during the microstructural development of liquid phase sintered silicon carbide ceramics," *J. Mat. Sci.*, 39 (2004) 4095-4101, DAAD and German Research Foundation
99. B. Y. Yu, and W. J. Wei,<sup>#</sup> K. C. Hsu, 2004, "Study of processing and adsorption mechanism of amphoteric polyelectrolyte in BaTiO<sub>3</sub> colloidal suspension," *J. Ceram. Proc. Res.*, Vol. 5, No. 2, pp. 163-170 (2004) NSC91-2120-E-002-009, SCI
100. C. C. Y. Yang, W. J. Wei,<sup>#</sup> A. Roosen, 2004, "Reaction kinetics and mechanism between La<sub>0.65</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> and 8 mol% yttria-stabilized zirconia," *J. Am. Ceram. Soc*87[6] 1110-16 (2004), NSC90-2216-E-002-028 and DAAD PPP 89021272
101. C. H. Wen, T. M. Wu, W. J. Wei,<sup>#</sup> 2004, "Oxidation kinetics of LaB<sub>6</sub> in oxygen rich conditions," *J. Europ. Ceram. Soc.*, 24, pp. 3235-3243 (2004) NSC92-2216-E-002-026
102. S. C. Wang and W. J. Wei,<sup>#</sup> 2003, "Characterization of electro-plated Ni/SiC and Ni/Al<sub>2</sub>O<sub>3</sub> composite coatings bearing nano particles," *J. Mat. Res.*, Vol. 18, No. 7, pp. 1566-74, (2003) NSC 89-2216-E-002-016
103. C. C. T. Yang, W. J. Wei,<sup>#</sup> A. Roosen, 2003, "Electrical conductivity and microstructures of La<sub>0.65</sub>Sr<sub>0.3</sub>MnO<sub>3</sub>- 8mol% Yttria stabilized zirconia," *Mat. Chem. Phys.*, **81**, 134-142 (2003), NSC90-2216-E-002-028, DAAD PPP 91-2911-1-002-007
104. H.C. Kao, W. J. Wei,<sup>#</sup> C. Y. Huang, 2003, "Two-stage densification of ultrafine transition alumina seeded with  $\alpha$ -phase particulates," *J. Ceram. Processing Research*, Vol. 4, No. 1, pp. 34-41(2003) (NSC 87-2622-E-002-014)
105. T-W. Chen, W. J. Wei,<sup>#</sup> 2003, "Synthesis and characterization of mono-sized SiO<sub>2</sub> ceramic particles in meso-structure," *Ceramic Nanomaterials and Nanotechnology, Ceramic Transaction*, Vol. 137, pp. 23-31, (2003) Am. Ceram. Soc.
106. S. C. Wang, W. C. J. Wei,<sup>#</sup> 2003, "Kinetics of electroplating process of nano-sized ceramic particle/Ni composite," *Mat. Chem. Phys.*, 78, 574-580(2003)
107. S. C. Wang, W. C. J. Wei,<sup>#</sup> L T. Zhang, 2003, "Microstructural characterization of LaB<sub>6</sub>-ZrB<sub>2</sub> Eutectic Composites," *Key Eng. Mat.*, Vol. 249, (2003) pp. 101-104
108. S. C. Wang, H. Z. Hsu, W. C. J. Wei,<sup>#</sup> 2003, "Microstructure of porous Sr-doped lanthanum manganite fabricated by sol-gel process," *Key Eng. Mat.*, Vol. 247, (2003) pp. 393-396
109. C.-L. Chen, W. C. J. Wei,<sup>#</sup> 2002, "Sintering behavior and mechanical properties of nano-sized

- $\text{Cr}_3\text{C}_2/\text{Al}_2\text{O}_3$  composites prepared by MOCVI process," J. Europ. Ceram. Soc., 22 [16] pp. 2883-2892(2002) (NSC89-2216-E-002-001)
110. C.-C. T. Yang, H. J. Cho, W. J. Wei,<sup>#</sup> 2002, "Quantitative characterization of various tetragonal zirconia polycrystals (TZPs)," J. Europ. Ceram. Soc., 22 199-207
  111. Y. Y. Chen, W.C.J. Wei,<sup>#</sup> 2001, "Formation of mullite thin film via a sol-gel process with polyvinylpyrrolidone additive," J. Europ. Ceram. Soc., 21, 2535-2540 (2001)
  112. S. C. Wang, W. J. Wei,<sup>#</sup> 2001, "Electrokinetic properties of nano-sized SiC particles in a highly concentrated electrolyte solutions," J. Am. Ceram. Soc., 84[7], 1411-14 (2001) NSC89-2218-E002-069
  113. T. M. Wu, C. L. Chen, W.C.J. Wei,<sup>#</sup> 2001, "The characterization of  $\text{Al}_2\text{O}_3$  composites containing nano-Mo particulates. III. Atmospheric reactions of Mo," Script. Mat. 44, 1025-31(2001) NSC 88-2216-E-002-028
  114. L.-S. Chang, T.-H. Chuang,<sup>#</sup> W. J. Wei, 2000, "Characterization of alumina ceramics by ultrasonic testing," (Journal) Mat. Charact., **45**, 221-226(2000) NSC79-0210-D002-20
  115. C. C. Yang, W. C. J. Wei,<sup>#</sup> 2000, "Effects of material properties and testing parameters on wear properties of fine-grain zirconia (TZP)," (Journal) Wear, **242**, 97-104 (2000) NSC87-2622-E-002-014
  116. C. J. Lin, W. J. Wei,<sup>#</sup> T. Iwai, C. W. Hong, P. Greil, 2000, "Discrete element method (DEM) simulation and processing of Mo/ $\text{Al}_2\text{O}_3$  granules in a fluidizing bed," Proc. National Science Council, Part A: Phys. Sci. Eng., Vol. **24**, No. 5, 394-404 (2000) NSC88-2216-E-002-028
  117. H. C. Kao, F. Y. Ho, C. C. Yang, W. J. Wei,<sup>#</sup> 2000, "Surface machining of fine grain Y-TZP," J. Europ. Ceram. Soc., **20**[14-15], 2447-2455 (2000) NSC86-2622-E-002-026R and NSC87-2622-E-002-014
  118. W. J. Wei,<sup>#</sup> R. Y. Wu, S. J. Ho, 2000, "Effects of pressure parameters on alumina made by powder injection moulding," J. Europ. Ceram. Soc., **20**[8], 1301-1310 (2000) NSC87-2216-E -002-034 and NSC86-2216-E-002-020
  119. W. J. Wei,<sup>#</sup> Y. P. Lin, 2000, "Mechanical and thermal shock properties of size grading MgO-PSZ refractory," J. Europ. Ceram. Soc. **20**[7], 1159-1167 (2000) NSC86-2216-E-002-020
  120. H. C. Kao, W. C. Wei,<sup>#</sup> 2000, "Kinetics and microstructural evolution of heterogeneous transformation of theta to alpha alumina," J. Am. Ceram. Soc., **83**[2], 362-68 (2000) NSC87-2622-E-002-014
  121. R. Y. Wu, W. Wei,<sup>#</sup> 2000, "Torque evolution and effects on alumina feedstocks prepared by various kneading sequence," J. Europ. Ceram. Soc. **20**[1], 67-75 (2000) NSC87-2216-E-002-034
  122. C. J. Lin, T. Young, W. J. Wei,<sup>#</sup> 1999, "Processing and microstructure of nano-Mo/ $\text{Al}_2\text{O}_3$  composites from MOCVD and fluidized bed," Nanostructured Materials, **11**[8], 1361-1377 (2000)NSC88-2216-E-002-028
  123. W. J. Wei,<sup>#</sup> S. C. Wang, F. Y. Ho, 1999, "Electrokinetic properties of colloidal zirconia powder in aqueous suspension," J. Am. Ceram. Soc., **82**[12] 3385-92 (2000), NSC86-2622-E- 002-026R
  124. F. Y. Ho, W.C.J. Wei,<sup>#</sup> 1999, "Dissolution of yttrium ions and phase transformation of 3Y-TZP powder in aqueous solution," J. Am. Ceram. Soc. 82[6] 1614-16 (1999) NSC86-2622- E-002-026R
  125. W. J. Wei,<sup>#</sup> C. L. Hsieh, 1999, "Drying kinetics of ultrafine alumina cake with drying control chemical (DCC)," J. Ceram. Soc. Jpn., **107**[4] 313-317 (1999) NSC85-2622-E-002-020
  126. W. J. Wei,<sup>#</sup> P. C. Wang, 1999, "Microstructural optimization of alumina prepared from ultrafine theta-phase powder for high strength application," Sci. Eng. Ceram. II, Key Eng. Mat. 2, 151-154 (1999)
  127. W.C.J. Wei,<sup>#</sup> S. C. Wang, F.-H. Cheng, 1998, "Characterization of  $\text{Al}_2\text{O}_3$ -composites with fine Mo particulates, I. Microstructural development," Nano-Structured Materials, Vol. **10**, No. 6, pp. 965-981 (1998) (SCI: Mat. Sci., 27/111) NSC87-2216-E-002-034
  128. S. C. Wang, W.C.J. Wei,<sup>#</sup> 1998, "Characterization of  $\text{Al}_2\text{O}_3$ -composites with fine Mo particulates, II. Densification and mechanical properties," Nano-Structured Materials, Vol. 10, No. 6, pp. 983-1000 (1998) (SCI: Mat. Sci., 27/111) NSC87-2216-E-002-034
  129. W.C.J. Wei,<sup>#</sup> Y. P. Lin, 1998, "Processing character of MgO-partial stabilized zirconia (PSZ) in size grading prepared by injection molding," J. Europ. Ceram. Soc., **18**, (1998) 2107-2116 (SCI: Ceramics, 3/15) NSC85-2622-E-002-020

130. W.C.J. Wei,<sup>#</sup> S. J. Tsai, K. C. Hsu, 1998, "Effects of mixing sequence on alumina prepared by injection molding," *J. Europ. Ceram. Soc.*, **18**[5], 1445-51(1998) (SCI: Ceramics, 3/15) NSC85-2216-E-002-031
131. W.C.J. Wei,<sup>#</sup> M. H. Lo, 1998, "Processing and properties of (Mo, Cr) oxycarbides from MOCVD," *Applied Organometallic Chemistry*, Vol. 12, 201-220, (1998) (SCI: App. Chem., 6/32) NSC85-2216-E002-019
132. W. C. Wei,<sup>#</sup> J. S. Lee, 1998, "Formation and reaction kinetics of Mo and Mo silicides in the preparation of  $\text{MoSi}_2/\text{SiC}$  composites," *J. Europ. Ceram. Soc.*, **18** (1998) 509-520, (SCI: Ceramics, 3/15) NSC85-2216-E002-019
133. K. C. Chang, W. J. Wei, C. Chen,<sup>#</sup> 1998, "Oxidation behavior of thermal barrier coating modified by laser remelting," *Surface Coating and Technology*, **102** (1998) 197-204, (SCI: Coating & Film, 4/8) NSC84-2216-E002-008
134. M. H. Lo, W.C.J. Wei,<sup>#</sup> 1997, "Analysis of (Cr, Mo) oxycarbide films grown on stainless steel via MOCVD," *J. Am. Ceram. Soc.*, **80**[4] 886-92 (1997) (SCI: Mat. Sci., Ceramics, 1/15) NSC85-2216-E-002-019
135. M. H. Lo, W. J. Wei,<sup>#</sup> 1996, "Hardness and adhesive properties of (Cr, Mo) oxycarbide films on stainless steel via vapor deposition," *J. Mat. Res.*, Vol. 11, No., 11, 2895-2902(1996) (SCI: Mat. Sci., 8/81) NSC85-2216-E-002-019
136. W. C. J. Wei,<sup>#</sup> H. C. Kao, M. H. Lo, 1996, "Phase transformation and grain coarsening of zirconia/mullite composites," *J. Europ. Ceram. Soc.*, **16**, 239-247 (1996) (SCI: Mat. Sci., Ceramics, 4/15) NSC81-0405-E-002-25 and NSC82-0405-E-002-245
137. M. H. Lo, F. H. Cheng, W.C.J. Wei,<sup>#</sup> 1996, "Preparation of  $\text{Al}_2\text{O}_3/\text{Mo}$  nanocomposite powder via chemical route and spray drying," *J. Mat. Res.*, Vol. **11**, No. 8, 2020-2028 (1996) (SCI: Mat. Sci., 8/81)
138. W. C. J. Wei,<sup>#</sup> Su Jen Lu, Chang Li Hsieh, 1996, "Colloidal processing and fracture strength of alumina prepared from partially agglomerated theta-phase powder." *J. Ceram. Soc. Jpn.*, **104**[4], 277-283 (1996) (SCI: Mat. Sci., Ceramics, 5/15) NSC82-0405-E-002-119 and NSC83-0405- E-002-009
139. Tsung-Min Wu, Kon-Hon Won, W. Wei,<sup>#</sup> 1996, "Processing and measurement of basic properties of SiC and cordierite coatings of carbon/carbon composite," (*Journal*) *Surface and Coatings Technology*, Vol. **78**[1-3] pp.64-71(1996) (SCI: Materials Sci., 22/96)
140. W. C. J. Wei,<sup>#</sup> Su Jen Lu, Bu-Kon Yu, 1995, "Characterization of submicron alumina dispersions with poly(methacrylic acid) polyelectrolyte," *J. Europ. Ceram. Soc.*, **15** (1995) 154-164 (SCI: Mat. Sci., Ceramics, 4/15) NSC82-0405-E002-119
141. Li-Ming Wang, W. C. Wei,<sup>#</sup> 1995, "Colloidal processing and liquid phase sintering of SiC," *J. Jpn. Ceram. Soc.*, **103** [5] pp. 434-443 (1995) NSC82-0405-E002-119
142. T. T. Lin, C.F. Lin, W. Wei,<sup>#</sup> 1994, "Mechanisms of metal stabilization in cementitious matrix: transmission electron microscopic study of  $\text{C}_3\text{A}/\text{CuO}$  fixation system", *J. Hazardous Materials*, **36** (1994) 55-68, (SCI: Environmental Sciences, 50/89)
143. W. Wei,<sup>#</sup> T. M. Wu, 1994, "Oxidation of carbon/carbon composite coated with  $\text{SiC}-(\text{Si/ZrSi}_2)-\text{ZrSi}_2$ ", *CARBON* **32**, No. 4 , pp. 605-613 (1994), (SCI: Materials Science, 7/91)
144. T. T. Lin, C.F. Lin, W. Wei,<sup>#</sup> 1994, "Mechanisms of metal stabilization in cementitious matrix: Interaction of  $\text{C}_3\text{S}$  paste and copper oxide", *Toxicological & Environmental Chemistry* Vol. **42**, pp.137-148 (1994), (SCI: Environmental Sciences, 66/89)
145. T. T. Lin, C.F. Lin, W. Wei,<sup>#</sup> 1994, "Mechanisms of metal stabilization in cementitious matrix: Interaction of dicalcium silicate ( $\text{C}_2\text{S}$ ) paste and Copper oxide", *Toxicological & Environmental Chemistry*, Vol. **43**, pp.51-62 (1994), (SCI: Environ. Sciences, 66/89)
146. W.C.J. Wei,<sup>#</sup> J. W. Halloran, 1994, "Fine SiC inclusions and grain boundary phases in pressureless sintered SiAlON," *J. Europ. Ceram. Soci.*,**14**, 419-426 (1994) (SCI: Mat. Sci., Ceramics, 4/15)
147. T. M. Wu, W. Wei,<sup>#</sup> S. E. Hsu, 1993 "Temperature dependence of the oxidation resistance of coated carbon/carbon composite," *Mat. Chem. Phys.*, **Vol. 33**, 208-213, (1993) (SCI: Materials Science, 53/96)
148. Tzong-Tzeng Lin, Cheng-Fang Lin,<sup>#</sup> W. C. J. Wei, Shang-Lien Lo, 1993, "Mechanisms of metal stabilization in cementitious matrix: Interaction of tricalcium aluminate and copper

- oxide/hydroxide," Environmental Science and Technology, **Vol. 27**, No.7 1312-1318 (1993) (SCI: Environmental Sciences, 1/89)
149. M. H. Lo, W. Wei,<sup>#</sup> 1993, "Microstructural analysis of the interface between  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  and Ag/Pd alloys," Jpn. J. Appl. Phys., Vol. **32**, Part 1, No. 10, 4509-4516, (1993) (SCI: Applied Physics, 14/48) NSC-80-0405-E002-02
150. T. M. Wu, W. Wei,<sup>#</sup> S. E. Hsu, 1992, "Sol-gel silica in the healing of microcracks in SiC-coated carbon/carbon composites", J. Europ. Ceram. Soci., **9**, 351-356 (1992) (SCI: Mat. Sci., Ceramics, 4/15)
151. T. M. Wu, W.C. Wei,<sup>#</sup> S. E. Hsu, 1992, "The effect of boron additive on the oxidation resistance of SiC protected graphite", Ceramics International, **18**, pp. 167-172 (1992) (SCI: Materials Science, Ceramics, 7/13)
152. W. Wei,<sup>#</sup> R. Adams, 1992, "Phase transformation and microstructure of a dense zircon-zirconia composite", J. Europ. Ceram. Soc., **10**, 291-298 (1992) (SCI: Mat. Sci., Ceramics, 4/15)
153. W. C. Wei,<sup>#</sup> W.H. Lee, 1992, "Grain delamination of Ag-Doped  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  superconductor", Jpn J. Appl. Phys., Vol. **31** (1992) pp. 1305-1309, part 1, No. 5A, May 1992, (SCI: Applied Physics, 14/48)
154. W. Wei,<sup>#</sup> R. R. Lee, 1991, "Pressureless sintering of AlN-SiC composites", J. Mat. Sci., **26**, 2930-2936 (1991), (SCI: Materials Science, 30/91)
155. T. M. Wu, W.C. Wei,<sup>#</sup> S. E. Hsu, 1991, "On the oxidation kinetics and mechanisms of various SiC-coated carbon/carbon composites", CARBON, Vol. **29**, No.8, pp. 1257-1265, (1991) (SCI: Materials Science, 7/91)
156. W. C. Wei, J.W. Halloran,<sup>#</sup> 1988, "Phase transformation of diphasic aluminosilicate gels", J. Am. Ceram. Soc., **71** [3], 166-72 (1988) (SCI: Materials Science, Ceramics, 1/13)
157. W. C. Wei, J.W. Halloran,<sup>#</sup> 1988, "Transformation kinetics of diphasic aluminosilicate gels", J. Am. Ceram. Soc., **71** [7], 581-87 (1988) (SCI: Materials Science, Ceramics, 1/13)

#### (A) 期刊論文(Local Journal, Non-SCI)

158. 張祐誠、韋文誠<sup>#</sup>、黃馨儀，2023，700W 中溫行固態燃料電池之爐體熱效益改善研究，台灣能源期刊，**10**[1]，(2023) 33-46
159. Z. H. Chang, T. Y. Yang, W. B. Guan, W. C. J. Wei,<sup>#</sup> 2022, "A study of sintering, microstructure, and electrical conductivity of (Ca, Fe, Sm) multiple doped ceria electrolytes," 中華民國粉體及粉末冶金會刊，**47**[2]，173-190 (2022)
160. W. C. J. Wei,<sup>#</sup> U. H. Cheong, K. Y. Cheng, C. Y. Chang, 2017, "Gasification and syngas reforming of lignin biomasses in Taiwan for SOFC applications," J. Taiwan Energy, 4 (2017) 77-92
161. K. Y. Chen, S. Y. Ke, Y. Y. Chen, W. C. J. Wei,<sup>#</sup> "Ceramic catalyst carrier for gasification and syngas reforming of municipal solid waste as renewable energy sources," Bulletin of Taiwan Ceramic Soc., vol. 36 [1] (2017) 23-30
162. \*<sup>1</sup>劉立德、黃德榮、賴佑璋、陳牧民、韋文誠<sup>#</sup>，2013，" 固態燃料電池之薄層電解質與陽極共燒之性質評估，" 粉末冶金會刊，**38**[4] (2013) 226-239
163. W. C. J. Wei,<sup>#</sup> Y. C. Hu, T. Chou, Q. J. Zhou, 2013, "Ionic conductivity of  $\text{Bi}_2\text{O}_3$ -based Materials," Bull. Taiwan Ceramic Society, **32** [2] (2013) 40-46
164. Y. C. Hu, W. C. J. Wei,<sup>#</sup> 2012, "Synthesis and characterization of mullite-type  $(\text{Bi}_{2-x}\text{Ca}_x)\text{Al}_4\text{O}_9$  ionic materials," Bull. Taiwan Ceramic Society, **31**[4] (2012) 74-82
165. Z. T. Dai, C. H. Weng, W. C. J. Wei,<sup>#</sup> 2011, "Homogeneity analysis and phase transformation of Y, Nb-doped  $\text{Bi}_2\text{O}_3$  electrolytes," Bull. Taiwan Ceramic Society, vol.30[3], (2011) 44-55
166. 廖大維、韋文誠<sup>#</sup>，2011，"多層氧化硼矽基玻璃之初步燒結研究"，中華民國陶業研究學會會刊，Vol. 30[2], (2011) 1-6
167. 吳榮源、林廷諭、葛春明、韋文誠<sup>#</sup>，2011，"碳碳高熱傳複合材料之精密成形研究"，中華民國陶業研究學會會刊，Vol. 30[2], (2011) 31-39
168. Y. Y. Chen, W. C. J. Wei,<sup>#</sup> 2010, "Microstructure analysis of the interface of yttria-doped ceria (YDC) and yttria-stabilized zirconia (YSZ)," Bull. Taiwan Ceramic Society, vol. 29[4], (2010)7-18

<sup>1</sup> 獲頒 103 年度中華民國粉體及粉末冶金協會論文獎， 8/15/103，宜蘭

169. Y. Y. Chen, H. Z. Hsu, W. C. J. Wei,<sup>#</sup> 2010, "Film synthesis and electrical properties of porous Sr-doped Lanthanum manganite (LSM) electrode by sol-gel process," Bull. Taiwan Ceramic Society, vol. 29[2], (2010) 8-17
170. 林浚傑、韋文誠<sup>#</sup>、黃啟原, 2010, "錳矽氧玻璃添加之鈦酸鋇陶瓷的液相燒結與特性研究," 中華民國陶業研究學會會刊, Vol. 29[1], (2010) 10-16
171. 張哲源、王茹立、杜明婷、黃啟原<sup>#</sup>、韋文誠, 2010, "不同熱處理與銀鈦比的改變對鈦酸鋇粉末晶粒大小、結晶相、相轉換溫度及粉末介電常數之影響," 中華民國陶業研究學會會刊, Vol. 29[1], (2010) 35-43
172. C.-Y. S. Chang, W. C. J. Wei,<sup>#</sup> C. H. Hsueh, 2009, "Processing and creep behavior of multi-layered cofired glass structure for gas channel application in solid oxide fuel cell," Bull. Taiwan Ceramic Society, 28[1], (2009) pp. 49-55 (宗偉章文教基金會)
173. 駱嬿雯、韋文誠<sup>#</sup>, 2008, "奈米氧化物在常溫下的水合動力學研究", 中華民國陶業研究學會會刊, Vol. 27[2], (2008) 1-5
174. 盧裕豐、張立信<sup>#</sup>、韋文誠, 2007, "氧化硼焊料與氧化鋁基材間反應層晶體結構與成長型態分析", 中華民國陶業研究學會會刊, Vol. 26[4] (2007) 24-28, NSC90-2216-E-005-021
175. \*<sup>2</sup>Y. J. Wang, W. C. J. Wei,<sup>#</sup> 2005, "Analysis of interfacial microstructures of co-fired silver electrode and La-Si-B-O-mullite glass ceramics," (in Chinese) J. Mat. Sci. Eng., 37 [4], 173-181 (2005) (奈米技術中心93B40051)
176. R. Y. Wu, W. J. Wei,<sup>#</sup> 2004, "Study on the preparation of homogenous zirconia feedstocks by various kneading mechanisms," (in Chinese) J. Mat. Sci. Eng., Vol. 36[4] 236-247 (2004) (奈米技術中心92BA0041)
177. H. R. Hsu, S. C. Wang, W. J. Wei,<sup>#</sup> 2003, "Synthesis and sintering of porous La<sub>0.8</sub>Sr<sub>0.2</sub>MnO<sub>3</sub> powder," (in Chinese) Bull. Coll. Eng., National Taiwan University, V89, Oct. 2003, pp. 83-90 (2003) NSC92-2212-E-002-097
178. C.-C. T. Yang, W. J. Wei,<sup>#</sup> 2003, "Fabrication and characterization of partially reduced NiO-YSZ Cermets," J. Mat. Sci. Eng., Vol. 35[2] 83-90 (2003) NSC89-2216-E-002-043
179. H. C. Kao, W. J. Wei,<sup>#</sup> C.K. Cheng, 2003, "Evaluation of material and mechanical properties of synthetic ceramic femoral heads," J. Mat. Sci. Eng., Vol. 35 [2] 75-82 (2003)
180. P.C. Wang, W. J. Wei,<sup>#</sup> K. C. Lu, 2002 "Statistic analysis of sintering parameters of Al<sub>2</sub>O<sub>3</sub> by experimental design," (in Chinese) J. Mat. Sci. Eng., Vol. 34[3] 144-152 (2002)
181. B. Y. Yu, W. J. Wei,<sup>#</sup> 2001, "Purification and surface property analysis of ultrafine nano-sized diamond like powder," (in Chinese) J. Mat. Sci. Eng., 33[1] 1-9 (2001) NSC89-2218-E-002-069
182. C. J. Lin, W. J. Wei,<sup>#</sup> 2001, "Sintering behavior and microstructure of nano-Mo-Al<sub>2</sub>O<sub>3</sub> composites," J. Mat. Sci. Eng., 33[1], pp. 10-19 (2001)
183. 高鴻展, 韋文誠<sup>#</sup>, "氧化鋁陶瓷輪磨加工之表面分析", 磨粒會訊, 第21期, 11-19, Nov. (2000)
184. H. R. Chuo, W. J. Wei,<sup>#</sup> 2000, "Study on the drying behavior and microhardness of hollow alumina head," (in Chinese) Bull. Chin. Ceram. Soc., Vol. 19[4], pp.43-50 (2000)
185. W. Y. Wang, W. J. Wei,<sup>#</sup> S. Y. Yang, 2000, "Low pressure injection molding process of piezoelectric Pb(Zr,Ti)O<sub>3</sub> ceramics," (in Chinese) Bull. Coll. Eng., NTU, No. 79, pp. 11-19, (2000)
186. Chih-Lung Chen, W. J. Wei,<sup>#</sup> 2000, "High temperature oxidation and reaction kinetics of nano-sized Mo/Al<sub>2</sub>O<sub>3</sub> composites," (in Chinese) Bull. Chin. Ceram. Soc., 19[1], pp. 28-33 (2000)
187. R. Y. Wu, W. J. Wei,<sup>#</sup> 1997, "Solvent debinding of ceramic injection molding articles with a thick cross section," (in Chinese) J. Chin. Ceram. Soc., Vol. 1, No. 2, pp. 1-8 (1997)
188. W. J. Wei,<sup>#</sup> C. L. Hsieh, S. J. Cheng, 1997, "Study on the rheological and green properties of SiC based materials mixed with submicrometric alumina powder," Chin. J. Mat. Sci., Vol. 29[4], pp. 254-260 (1997)
189. J. S. Lee, H. J. Kao, W. J. Wei,<sup>#</sup> J. S. Huang, 1996, "Effects of surface wheel grinding by Electrolytic In-process Dressing (ELID) to mechanical properties of fine-grain alumina," Chin. J. Mat'l Sci., Vol. 28 [2] pp.115-122 (1996)

<sup>2</sup>獲得中國材料科學學會材料科學傑出論文獎, 2006/11/24

190. B. C. Chyr, W. Wei,<sup>#</sup> C.H. Koo, 1993, "Flexural strength and surface grinding properties of alumina," Chin. J. Mat. Sci., **Vol. 25**[3] (1993) 173-180
191. \*<sup>3</sup> T. T. Lin, C. F. Lin, <sup>#</sup>W. Wei, 1993, "Reaction Mechanisms of solidification/ stabilization of copper oxide using calcium silicate fixing agents," J. Chin. Inst. Environ. Eng., Vol. 3[3], (1993) pp. 153-161
192. C. M. Wang, Y.F. Yang, H. C. Kao,<sup>#</sup> W. Wei, 1992, "Superconductivity and the anomalous Meissner Effect in  $\text{La}_3\text{CaBa}_3\text{Cu}_7\text{O}_{15.5+x}$  oxide", J. Chinese Chemical Society, **39**[1], pp. 67-69 (1992)
193. Yu-Chi Lee, W. Wei,<sup>#</sup> 1992, "Dispersion and high-pressure filtration of zircon/alumina composite slurry," Chin. J. Mat. Sci., Vol. **24**[2], pp. 113-122 (1992)
194. C. S. Lee, C.H. Koo, W. Wei,<sup>#</sup> 1992, "Processing and microstructure of post-sintered reaction-bonded silicon nitride", Chin. J. Mat. Sci. Vol. **24**[3], pp. 154-163 (1992)
195. T. C. Lin, W. Wei,<sup>#</sup> 1991, "A study on rheological behavior of Si powder-SiC whisker slurry," Chinese Journal of Materials Science, **V23**[2], 182-188 (1991)
196. W. Wei,<sup>#</sup> 1991, "Processing and microstructure evolution of silica sols and gels", Bull. Coll. Eng., National Taiwan University, **V53**, , pp. 9-22(1991)
197. T. M. Wu, W. Wei,<sup>#</sup> S. E. Hsu, 1990, "A study on the oxidation resistance of coated carbon/carbon composite," Chinese Journal of Materials Science, **Vol. 22**[2], 70-78 (1990)

**(B) 研討會論文 (International Conference Paper)** <sup>#</sup> present paper

1. K. Y. Chen,<sup>#</sup> Y. Y. Chen, W. C. J. Wei, "3D printed ZnO absorbent for desulfurization of syngas fuel," IEEE/SICE International Symposium on System Integration, SII 2017, Dec. 11-14, 2017 Taipei, Taiwan
2. Y. T. Huang,<sup>#</sup> W. C. J. Wei, Y. Y. Chen, A. B. Wang, "Flowing behavior simulation of Melt Extrusion process for 3D additive manufacturing," IEEE/SICE International Symposium on System Integration, SII 2017, Dec. 11-14, 2017 Taipei, Taiwan
3. D. Wang<sup>#</sup>, W. C. J. Wei, 2016, "( $\text{Bi}_{0.7}\text{Sr}_{0.3}$ ) ( $\text{Fe}_{1-x}\text{M}_x$ )\text{O}\_3 (M=Ni, Co and Mn) Cathode Materials for Solid Oxide Fuel Cells," 2016 International Conf. on Energy Materials and Applications (ICEMA), May 5-7, Soul, Korea,
4. N. C. Fan, W. C. J. Wei,<sup>#</sup> B. Liu, A.B. Wang, R. C. Luo, 2016, "Ceramic feedstocks for additive manufacturing," 2016 IEEE International Conference on Industrial Technology, March 14-17, 2016, Taipei, Taiwan
5. C. S. Chou, W. C. J. Wei,<sup>#</sup> B. Liu, A.B. Wang, R. C. Luo, 2016, "Cu-based alloys for 3DP by melt extrusion process," 2016 IEEE International Conference on Industrial Technology, March 14-17, 2016, Taipei, Taiwan
6. P. W. Wang, C. S. Chou, W. C. J. Wei, B. Liu, A.B. Wang, R. C. Luo, 2016, "Glass and hot extrusion by ME module for 3D additive manufacturing," 2016 IEEE International Conference on Industrial Technology, March 14-17, 2016, Taipei, Taiwan
7. P. C. Hsieh<sup>#</sup>, C. H. Tsai, B. H. Liu, W. C. J. Wei, A.B. Wang, R. C. Luo, 2016, "3D printing of low melting temperature alloys by fused deposition modeling," 2016 IEEE International Conference on Industrial Technology, March 14-17, 2016, Taipei, Taiwan
8. C. Y. Liu,<sup>#</sup> Y. W. Hsieh, T. J. Sun, J. W. Zeng, A.B. Wang, N. T. Lee, S. W. Chen, R. C. Luo, W. C. Wei, H. C. Liu, W.T. Chen, P. C. Hsu, 2016, "Design and test of additive manufacturing for coating thermoplastic PEEK material," 2016 IEEE International Conference on Industrial Technology, March 14-17, 2016, Taipei, Taiwan
9. W. J. C. Wei,<sup>#</sup> 2015, "Photonic bandgap effect of a Chinese Porcelain-Ju ware (by Qian Long)," 2015 International symposium on Ancient Ceramics (ISAC'15) 10/26-10/29/2015 at Shanghai, China
10. W. C. J. Wei,<sup>#</sup> C. H. Chou, M. M. Chen, 2015, "Synthesis and properties study of Cu-based anode on Sm-doped CeO<sub>2</sub> (SDC) electrolyte for IT-SOFC," The 11<sup>th</sup> Pacific Rim Conference of Ceramic Societies (PACRIM 11), Jeju, Korea, 8/30-9/4/2015
11. N. C. Fan,<sup>#</sup> W. C. J. Wei, 2014, "Ceramic feedstocks for 3D additive layer manufacturing," 2014 AMRA international conference, Sanya, China, 12/12-14, 2014
12. S. Y. Ke, <sup>#</sup> W. C. J. Wei, 2014, "Gasification of low-carbon city waste," ibid
13. C. S. Chou,<sup>#</sup> W. C. J. Wei, "Cu-Zn anode on Sm-doped CeO<sub>2</sub>(SDC) SOFC by 3D-printing method",

---

<sup>3</sup>中國土木水利工程學會八十三年度最佳論文獎 (83/11/26 頒發)

ibid

14. M. M. Chen, W. B. Guan, W. C. J. Wei,<sup>#</sup> 2014, "Self-sustainable solid-oxide fuel-cells (SOFCs) stacks operated with bio-fuel," IUMRS-ICE 2014, Taipei, Taiwan, June 10-14<sup>th</sup>, 2014
15. Y. H. Chen, W. C. J. Wei,<sup>#</sup> "Study on mixed ionic-electronic (MIE) conductivity of  $M_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_3$  ( $M=La, Bi, Pr$ ) cathode materials for SOFCs, IUMRS-ICE 2014, Taipei, Taiwan, June 10-14<sup>th</sup>, 2014
16. W. C. J. Wei,<sup>#</sup> J. W. Halloran, "Durable carbon for structure applications, H<sub>2</sub>-energy carbon building materials (HECBM), 2014 International Conference on Structures and Building Materials (ICSBM 2014), March 15-16 (2014), Guangzhou, China
17. M. M. Chen,<sup>#</sup> U. H. Cheong, W. C. J. Wei, "Portable solid oxide fuel cells (SOFCs) and holder operated with biofuel," 2014 International Conf. and Exp. On Advanced Ceramics and Composites, 1/26-1/31 Daytona Beach, FL, USA
18. U. H. Cheong,<sup>#</sup> W. C. J. Wei, "Biomass gasification and catalytic reforming for SOFC," 2014 International Conf. and Exp. On Advanced Ceramics and Composites, 1/26-1/31 Daytona Beach, FL, USA
19. W. C. J. Wei,<sup>#</sup> (invited) "Bi-based ionic materials for SOFC," 5<sup>th</sup> Conf. of Asia-Ocean Ceramic Federation (AOCF) Jeju, Korea, 10/16~10/19/2013
20. Y. Lai,<sup>#</sup> W. C. J. Wei, "Phase compatibility and fuel cell performance of Bi-V-O and Bi-V-Ca-O ionic materials," 10<sup>th</sup> PACRIM Conference on Ceramic and Glass Technology, June 2-7<sup>th</sup>, 2012, San Diego, CA, USA
21. W. C. J. Wei and T. Huang,<sup>#</sup> "(Bi,Sr)FeO<sub>3</sub> perovskite as cathode for intermediate-temperature solid oxide fuel cells," 10<sup>th</sup> PACRIM Conference on Ceramic and Glass Technology, June 2-7<sup>th</sup>, 2012, San Diego, CA, USA
22. Y.C. Hu\*, W. C. J. Wei, "Mullite-type  $(Bi_{2-x}Ca_x)Al_4O_9$  materials as active cathode layers for SOFC," CICC-7 international Conference, Nov.4-7, 2011, Xiamen, China
23. T. Y. Lin,<sup>#</sup> W. C. J. Wei, "Characterization and electrochemical performance of  $La_{0.6}Sr_{0.4}Co_{0.2}Fe_{0.8}O_3$ -based composite cathode for IT-SOFC," CICC-7 International Conference, Nov.4-7, 2011, Xiamen, China
24. T. T. Dai, Tom Chow, W. C. J. Wei,<sup>\*</sup> (invited lecture) "Long-term electric conductivity of co-doped Bi<sub>2</sub>O<sub>3</sub> solid electrolyte for SOFC," ACTSEA-2011 Taiwan, Oct. 30 to Nov. 2, 2011, Kenting Taiwan
25. L. D. Liu,\* W. C. J. Wei, "Highly conductive  $\delta$ -Bi<sub>2</sub>O<sub>3</sub> pathway in a Bi<sub>2</sub>O<sub>3</sub> ceramic matrix with dispersed 8YSZ spheres," MS&T 2011, Oct. 16-20, 2011 Columbus, OH, USA
26. C.W. Huang,<sup>#</sup> C. H. Hsueh, B. T. Chen, W. C. J. Wei, C. T. Lee, "Finite element analysis and design of thermal-mechanical stresses in multilayer ceramic capacitors," IUMRS-ICA-2011 conference, Sep. 19-22, Taipei, Taiwan
27. Kun-Yen Chen,<sup>#</sup> Marklaw Wu, C. W. Huang, W. C. J. Wei, C. H. Hsueh, "Simulation of stresses in MLCC subjected to board flex test using object-oriented finite-element analyses," IUMRS-ICA-2011 conference, Sep. 19-22, Taipei, Taiwan
28. L. D. Liu,<sup>#</sup> W. C. J. Wei, 2011, "A highly conductive CMC with  $\delta$ -Bi<sub>2</sub>O<sub>3</sub> as network matrix," ibid
29. W. C. J. Wei (invited lecture), S. Y. Chung, H. Schneider, 2011, "Fabrication of mullite-type Bi<sub>2</sub>Al<sub>4</sub>O<sub>9</sub> and Bi<sub>2-x</sub>Ca<sub>x</sub>Al<sub>4</sub>O<sub>9</sub> ceramics," 5<sup>th</sup> International Workshop on Mullite & Mullite-type Materials, Mullite 2011, May 8-11, Aviles, Spain
30. W. C. J. Wei, (invited lecture), 2010, "Reinvestigation of ionic conductivity of sintered M<sub>2</sub>O<sub>5</sub>-Bi<sub>2</sub>O<sub>3</sub> oxides," BMEA2010 conference, Nov. 21-24, Taipei, Taiwan
31. S. E. Lin, W. C. J. Wei, 2010, "Investigation of ionic conductivity of sintered Ta<sub>2</sub>O<sub>5</sub>-Bi<sub>2</sub>O<sub>3</sub> oxides," BMEA2010 conference, Nov. 21-24, Taipei, Taiwan
32. T. Chou and W. C. J. Wei, 2010, "Preparation, crystalline structure and electrical properties of Er<sub>2</sub>O<sub>3</sub>-Nb<sub>2</sub>O<sub>5</sub>doped Bi<sub>2</sub>O<sub>3</sub> electrolyte," BMEA2010 conference, Nov. 21-24, Taipei, Taiwan
33. T. C. Kuo and W. C. J. Wei, 2010, "Analysis of SnO<sub>2</sub>-doped Bi<sub>2</sub>O<sub>3</sub>," BMEA2010 conference, Nov. 21-24, Taipei, Taiwan
34. Ching-Hung Weng, Pei-You Dai, W. C. J. Wei, 2010, " Phase Transformation and Homogeneity Analysis of Y, Nb-Doped Bi<sub>2</sub>O<sub>3</sub> Electrolytes," BMEA2010 conference, Nov. 21-24, Taipei, Taiwan
35. W. C. J. Wei, (invited lecture), 2009, "Doped (M1, M2)B<sub>2</sub>O<sub>3</sub> electrolyte for SOFC," ACTSEA 2009, Taipei, Taiwan
36. C. Y. Chang, W. C. J. Wei, C. H. Hsueh, 2009, "Processing and creep behavior of multi-layered cofired glass for gas channel application in solid oxide fuel cell," 8<sup>th</sup> Pacific RIM Conf. on Ceramic and Glass Technology, 5/31-6/5/2009, Vancouver, Canada
37. S. E. Lin, Y. Chen, and W. C. J. Wei, 2009, "Synthesis and long-term test of novel silicate sealing glass for IT-SOFC," 8<sup>th</sup> Pacific RIM Conf. on Ceramic and Glass Technology, 5/31-6/5/2009, Vancouver, Canada

38. W. C. J. Wei, S. Chuang, H. Schneider, 2009, "Colloidal processing of doped mullite type  $\text{Bi}_2\text{M}_4\text{O}_9$  and Bi-fluorite electrolytes for SOFC," 8<sup>th</sup> Pacific RIM Conf. on Ceramic and Glass Technology, 5/31-6/5/2009, Vancouver, Canada
39. C. Huang, W. C. J. Wei, C. Chen, 2009, "Atomistic simulation of diffusion and electric conduction process in fluorite-type ceramic electrolyte," 8<sup>th</sup> Pacific RIM Conf. on Ceramic and Glass Technology, 5/31-6/5/2009, Vancouver, Canada
40. C. W. Huang, W. C. J. Wei, C. S. Chen, 2009, Atomistic simulation of diffusion and electric conduction process in fluorite-type ceramic electrolyte, "ICAE'90, Hong Kong, 2009/1/5-7
41. C. H. Weng, W. C. J. Wei, 2009, "Highly ionic conductive bismuth oxide electrolyte for intermediate temperature-solid oxide fuel cell (IT-SOFC)," ICAE'90, Hong Kong, 2009/1/5-7
42. W. C. J. Wei, (invited lecture) 2008, "Sealing Glass-Ceramics for Intermediate-Temperature Solid Oxide Fuel Cells (IT-SOFCs)," 9<sup>th</sup> International symposium on CMCEE, Shanghai, 2008/11/10-14
43. Jerry C. C. Lin, W. C. J. Wei, A. Roosen, 2008, " Low Temperature Sintering of  $\text{BaTiO}_3$  without Grain Growth via the addition of Mn-Si-O Glass , " 2008 MS&T, 10/5-10/9, Pittsburgh,
44. Sung-En Lin, Wen-Cheng J. Wei, Jenn-Feng. Li, Chuin-Shan Chen, 2008, "Simulation and Fabrication of a Perfect Packed PBG Crystal with BCT Structure by designed template," Science and Technology for Advanced Ceramics and The 1<sup>st</sup> International Conference on Science and Technology of Solid Surface and Interface (STAC2-STSII), 5/31-6/2, Chiba, Japan
45. Y. Y. Chen, W. C. J. Wei, 2007, "Fabrication and microstructural analysis of anode-supported YSZ film by particle deposition method for SOFC," 2007 World Renewable Energy Conference-Pacific Ring Region, Oct. 29<sup>th</sup>-Nov. 1<sup>st</sup>, 2007, Taipei, Taiwan
46. W. C. J. Wei, 2007, "Development of micro-solid oxide fuel cells (Micro-SOFCs)," (poster) 2007 World Renewable Energy Conference-Pacific Ring Region, Oct. 29<sup>th</sup>-Nov. 1<sup>st</sup>, 2007, Taipei, Taiwan
47. Y. R. Chen, W. C. J. Wei, 2007, " $\text{BaO-B}_2\text{O}_3-\text{SiO}_2-\text{Al}_2\text{O}_3$  glass ceramic system used as sealant for intermediate-temperature solid oxide fuel cell (IT-SOFC)," (poster) 2007 World Renewable Energy Conference-Pacific Ring Region, Oct. 29<sup>th</sup>-Nov. 1<sup>st</sup>, 2007, Taipei, Taiwan
48. B.-Y. Yu, W. C. J. Wei, S. C. Wag, J. I. Shyue, 2007, "High temperature porous  $\text{Al}_2\text{O}_3$  filter in gradient structure-Tabular alumina formation on porous alumina substrate," EuroMat 2007, Sep. 9-Sep 13, Nurnberg, Germany
49. S. E. Lin, W. C. J. Wei, 2007, "Synthesis and characterization of spherical indium hydrate particles," EuroMat 2007, Sep. 9-Sep 13, Nurnberg, Germany
50. C.-C. Lin, W. C. J. Wei, 2007, "Microstructural analysis of Ni- $\text{BaTiO}_3$  based MLCC device by Re-oxidation," EuroMat 2007, Sep. 9-Sep 13, Nurnberg, Germany
51. Y.-J. Chen, W. C. J. Wei, 2007, "Ba-Al-Si-B-oxide glass-ceramic materials as sealant for solid oxide fuel cell," (poster) EuroMat 2007, Sep. 9-Sep 13, Nurnberg, Germany
52. I. W. Lo, C. C. Lin, W. C. J. Wei, 2007, "Hydration kinetics of Nano-oxide powders and films at ambient temperature," (poster) EuroMat 2007, Sep. 9-Sep 13, Nurnberg, Germany
53. (invited lecture) W. C. J. Wei, Y. J. Chen, 2007, " $\text{Bi}_2\text{O}_3-\text{ZnO}-\text{SiO}_2-\text{B}_2\text{O}_3$  ceramic glaze as sealant for planar ITSOFC," CICC-5, May 10-13, Changsha, China, 2007
54. H. Y. Hsieh, W. C. J. Wei, 2007, "Study on phosphorescent spherical  $\text{SiO}_2$  particles coating with Mn-doped  $\text{Zn}_2\text{SiO}_4$  shell," CICC-5, May 10-13, Changsha, China, 2007
55. J. Y. Yu, W. C. J. Wei, 2007, "Gd-doped  $\text{CeO}_2$  fiber modified YSZ electrolyte for IT-SOFC, "CICC-5, May 10-13, Changsha, China, 2007
56. J. J. Gan, W. C. J. Wei, 2007, "Synthesis of Nb-doped  $\text{BaTiO}_3$  core-shell structure," CICC-5, May 10-13, Changsha, China, 2007
57. M. T. Weng, W. C. J. Wei, C. Y. Huang, 2006, "Grain size effect on mechanical performance of  $\text{Al}_2\text{O}_3/3\text{Y-TZP}$  composites," 2006 Asian Pacific conf. for Fracture and Strength (APCFS), Nov. 22-25, Sanya, Hainan Island, China, 2006
58. Y. J. Chen, Y. P. Chen, W.C.J. Wei, 2006, "Glass-forming ability, Interface joint strength and thermal properties of sealing glasses for SOFC," 2006 Asian Pacific conf. for Fracture and Strength (APCFS), Nov. 22-25, Sanya, Hainan Island, China, 2006
59. W. C. J. Wei, S.-E. Lin, J.-M. Sung (invited talk), 2006, "Synthesis and Assembly of Spherical Ceramic Particles for a Perfect Photonic Bandgap (PBG) Crystal on Designed Template, " 2<sup>nd</sup> AOCF conference, 10/18-10/20/2006, Daegu, Korea,
60. S. E. Lin, W. C. J. Wei, J. F. Li, C. S. Chen, 2006, "Towards Making a Perfect Photonic Bandgap Crystal with Designed Template," 108<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Cincinnati, USA Oct. 15-19, 2006
61. W. C. J. Wei, S. E. Lin, J. M. Sung, M. J. Chen, C. F. Lin, 2006, "Perfect and designed photonic bandgap crystals synthesized on template," 2006 Beijing International Materials Week (2006 BIMW), June 25-30, Beijing China

62. C. S. Chen, J. C. Chen, H. Schneider, W. C. J. Wei, 2006, Atomistic calculations of abnormal lattice constants of mullite with its composition, " Mullite 2006, 6/11-6/14, Vienna, Austria
63. B. Y. Yu, W. C. J. Wei, Reinvestigation of roles of impurity on the formation of acicular mullite on alumina substrate, " Mullite 2006, 6/11-6/14, Vienna, Austria
64. J. M. Sung, W. J. Wei, 2005, "Preparation and characterization of cerium hydrate fiber," 4<sup>th</sup> China International Conf. High-Performance Ceramics (CICC-4), 10/23-10/27, Chengdu, China, 2005
65. Y. J. Chen, W. J. Wei, 2005, "Investigation of YSZ thin film on silicon wafer and Ni-doped zirconia deposited by ion beam sputtering (IBSD) method," 4<sup>th</sup> China International Conf. High-Performance Ceramics (CICC-4), 10/23-10/27, Chengdu, China, 2005
66. M. T. Weng, W. J. Wei, 2005, "Kneading of aqueous Al<sub>2</sub>O<sub>3</sub>/3Y-TZP feedstocks," 4<sup>th</sup> China International Conf. High-Performance Ceramics (CICC-4), 10/23-10/27, Chengdu, China, 2005
67. C. C. Lin, W. J. Wei, 2005, "Kinetic behaviors of two-step sintering of fine  $\alpha$ -alumina powder," 4<sup>th</sup> China International Conf. High-Performance Ceramics (CICC-4), 10/23-10/27, Chengdu, China, 2005
68. S. E. Lin, W. J. Wei, 2005, "Various In-hydrate particles synthesized in aqueous system for PBG crystals," (poster) 4<sup>th</sup> China International Conf. High-Performance Ceramics (CICC-4), 10/23-10/27, Chengdu, China
69. J. C. Chen, C. S. Chen, W. C. J. Wei, 2005, "Molecular dynamics simulation of self-diffusion in sillimanite, 2/1- and 3/2-mullite," CCP5 annual meeting, Keele, UK
70. B. Y. Yu, W. J. Wei, 2005, "Controlled Nano-TiO<sub>2</sub>layer coating on Stöber SiO<sub>2</sub>particles with multiple optical functions," (poster) IEEE-2005, 5<sup>th</sup> IEEE Conference on Nano-technology., July 11-15, Nagoya, Jpn
71. H. Chen, W. J. Wei, C. Chen, 2005, "Adsorption of polyelectrolytes onto alpha-alumina," 107<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Baltimore, USA, April 10-13.
72. Y. Y. Chen, H. Hsu, W. J. Wei, 2005, "Microstructural development of porous Sr-doped lanthanum manganite (LSM) films by sol-gel process," 107<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Baltimore, USA, April 10-13
73. Y. Chen, W. J. Wei, 2005, "Synthesis of Diphasic Y-stabilized ZrO<sub>2</sub>/CeO<sub>2</sub> electrolyte in submicron thickness," 107<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Baltimore, USA, April 10-13
74. B. B. Yu, W. J. Wei, 2005, "Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub> thick films on porous Al<sub>2</sub>O<sub>3</sub> substrate, " 107<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Baltimore, USA, April 10-13
75. Y. J. Wang, W. J. Wei, 2005, "Interfacial Reaction between Silver Electrode and La-Si-B-O-mullite Glass Ceramics," Ceramic Interconnect and Ceramic Microsystems Technology (CICMT), Baltimore, USA, April 10-13
76. J. F. Li, B. Y Yu, C. S. Chen and W. C. J. Wei, 2004, "Modeling motion and interaction of nanosized bimodal colloids with discrete element method," IUMRS-ICA-2004, 16-18 Nov., 2004, Hsinchu, Taiwan
77. H. Y. Chen, W. C. Wei, C. S. Chen, 2004, "Molecular modeling of the mobility of different polymeric dispersant interactions with alumna surface in vacuum and water," IUMRS-ICA-2004, 16-18 Nov., 2004, Hsinchu, Taiwan
78. J. C. Chen, C. S. Chen, W. J. Wei, H. Schneider, 2004, "Atomistic calculations of elastic constants and heat capacity in sillimanite crystals," IUMRS-ICA-2004, 16-18 Nov., 2004, Hsinchu, Taiwan
79. Y. Y. Chen, W. J. Wei, 2004, "Preparation of cerium-doped zirconia based electrolyte thin films for solid oxide fuel cell," IUMRS-ICA-2004, 16-18 Nov., 2004, Hsinchu, Taiwan
80. W. Wei, 2004 "Preparation of mullite coatings on alumina," 5<sup>th</sup> Intern. Conf. High-Temp. Ceram. Matrix Composites, Sep. 12-16, 2004, Seattle, USA
81. S. F. Kemethmueller, A. Roosen, W. J. Wei, 2004 "Microstructure development of glass-ceramic composites in the cordierite system and their dielectric properties," 56<sup>th</sup> Pacific Coast Regional and Basic Science Div., Fall 2004 Meeting, Sep. 12-16, 2004, Seattle, USA
82. W. Wei, S. E. Lin, 2004 "Hydrothermal synthesis of shuttle-like In<sub>2</sub>O<sub>3</sub> particles," 7<sup>th</sup> International Conf. on Nanostructured Materials, June 20-24, 2004, Wiesbaden, Germany
83. W. C. J. Wei, C. L. Chen, A. Roosen, 2004 "Investigation of La<sub>2</sub>O<sub>3</sub>/B<sub>2</sub>O<sub>3</sub> based glass-ceramics for LTCC applications," Europ. Microelectronics and Packing Symposium, iMaps, June 16<sup>th</sup>-18<sup>th</sup>, 2004, Prague, Czech Republic
84. W. C. J. Wei, C. L. Chen, A. Roosen, 2004, "La<sub>2</sub>O<sub>3</sub>/Al<sub>2</sub>O<sub>3</sub>/B<sub>2</sub>O<sub>3</sub> based glass-ceramics for LTCC application," (invited lecture) 3<sup>rd</sup> China International Conf. on High-performance Ceramics (CICC-3), May 9<sup>th</sup>-12, Shenzhen, China
85. Y. H. A. Lee, W. C. J. Wei, 2004 "Processing and characterization of La<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-B<sub>2</sub>O<sub>3</sub> (LSB) based glass-ceramics for LTCC application," 3<sup>rd</sup> China International Conf. on High-performance Ceramics (CICC-3), May 9<sup>th</sup>-12, Shenzhen, China

86. S. E. Lin, W. C. J. Wei, 2004, "Synthesis and characterization of mono-dispersive  $\text{In}_2\text{O}_3$  particles," 3<sup>rd</sup> China International Conf. on High-performance Ceramics (CICC-3), May 9<sup>th</sup>-12, Shenzhen, China
87. J.-F. Lee, J.-T. Yang, C.-S. Chen, W.-C. Wei, 2004 "Packing simulation for colloidal particle sedimentation of photonic bandgap crystals," 106<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Indianapolis, USA, April 18-21
88. C. L. Chen, W. C. J. Wei, 2004 "Processing and characterization of  $\text{La}_2\text{O}_3/\text{B}_2\text{O}_3/\text{Al}_2\text{O}_3$  based glass-ceramics for LTCC application," 106<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Indianapolis, USA, April 18-21
89. Yen-Yu Chen, W. C. J. Wei, 2004, "Preparation of ultrathin yttria stabilized zirconia electrolyte by liquid precursor route," 106<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Indianapolis, USA, April 18-21
90. T.Y. Wu, W. J. Wei, 2003, "Formation mechanism of  $\text{Ba}_2\text{Ti}_9\text{O}_{20}$  phase by  $\text{ZrO}_2$  additive," 105<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Nashville, TN, USA, April 27-30
91. B. Y. Yu, W. J. Wei, K. C. Hsu, 2003, "Surface adsorption and dispersion of  $\text{BaTiO}_3$  colloids in aqueous solution with PAAM/DAAE," 105<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Nashville, TN, USA, April 27-30m 2003
92. B. Y. Yu, W. J. Wei, 2003, "Investigation on assembly and spectroscopic properties of photonic bandgap crystals with mono-dispersive  $\text{SiO}_2/\text{TiO}_2$  particles," 105<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Nashville, TN, USA, April 27-30
93. J. H. Wen, W. J. Wei, 2003, "Oxidation kinetics of  $\text{LaB}_6$  at high temperature," 105<sup>th</sup> Annual Meeting and Exposition of Am. Ceram. Soc., Nashville, TN, USA, April 27-30
94. J. F. Li, W. H. Yu, C. S. Chen, W. J. Wei, 2003, "Modeling nanosized colloidal particle interactions with Brownian Dynamics using discrete element method," Nanotech 2003, Tech. Proc. Vol. 2 pp. 566-569, The nanotechnology conference and trade show, Feb. 23-27, San Francisco, USA, 2003
95. C. L. Chen, W. J. Wei, W. S. Lee, 2002, "Sintering behavior and microstructural analysis of Ni/Cu with  $\text{BaTiO}_3$ ," 2<sup>nd</sup> International Sym. Adv. Ceramics, The lading materials in 21<sup>st</sup> century, Shanghai, China, Nov. 19-22, 2002
96. S. C. Wang, H. Z. Hsu, W. J. Wei, 2002, "Microstructure and electrical conductivity of porous Sr-Doped Lanthanum manganite fabricated by sol-gel process," Key Eng. Mat. Vol. 247 (2003) pp. 393-396, 2<sup>nd</sup> International Sym. Adv. Ceramics, The lading materials in 21<sup>st</sup> century, Shanghai, China, Nov. 19-22, 2002
97. T. W. Chen, W. J. Wei, 2002, "Synthesis and Assembly of Mono-sized  $\text{SiO}_2$  ceramic particles in meso-structure," Am. Ceram. Soc. 104<sup>th</sup> Annual Meeting and Exposition, St. Louis, Missouri, USA, April 28-May 1, 2002
98. E. Volt, A. Roosen, M. Alberichi, S. C. Wang, W. J. Wei, 2002, "Microstructure and electric resistivity of SiC ceramics," ibid
99. B.Y. Yu, W. Wei, 2001, "Surface adsorption and dispersion of  $\text{BaTiO}_3$  colloids with PDAAE," The second Chin. Intern. Conf. on High Performance Ceramics (CICC-2), Nov. 11-15, 2001, Kunming, China
100. W.T. Hsu, W. Wei, 2001, "Ion dissolution and property change of aqueous PZT suspension with PDAAE," ibid
101. R. Y. Wu, W. Wei, 2001, "Improvement on dispersive and homogeneous properties of Mg-PSZ feedstocks for powder injection molding," ibid
102. W. Wei, 2001, "Processing and characterization of electroplated composite Ni-layer with SiC and  $\text{Al}_2\text{O}_3$ ," 103<sup>rd</sup> Annual Meeting of Am. Ceram. Soc., Apr. 22-25, 2001, Indianapolis, USA
103. W. Wei, 2000, "Formation of mullite thin film by sol-gel process," Mullite 2000, Oban, Scotland, Aug. 28-30
104. W. J. Wei, C. J. Lin, C. L. Chen, 2000, "Nano-particulate/ $\text{Al}_2\text{O}_3$  composites prepared by gas synthesis," 1<sup>st</sup> Conf. Ceram. Metal Based Composites, Shanghai, China, July 19-21
105. S. C. Wang B. Y. Yu, W. J. Wei, 2000 "Processing of nano-ceramic particles/Ni composite coating for wear resistant applications," 7<sup>th</sup> International Sym. Ceramic Materials and Components for Engines, Goslar, Germany, June 19-21, 2000
106. W. J. Wei, P.N. Chai, R. Y. Wu, B.C. Chih, 2000, "Thermal shock properties of dense MgO-PSZ," ibid
107. C. J. Lin, W. J. Wei, 2000, "Sintering behavior and microstructure of Nano-Mo/ $\text{Al}_2\text{O}_3$  composites," ibid
108. W. J. Wei, P. N. Tsai, C. J. Lin, 1999, "Study on processing parameters of agglomerated ceramic powder in fluidized bed," pp.69-73 in Huagond Yejin, vol. 20, Oct. issue 1999, Conf. on Particle Technologies between Taiwan Strait, Oct. 12-16, Ju-Hai, China

109. W. J. Wei, 1999, "Dispersion and consolidation of nano-sized alumina powder in aqueous solution," pp. 503-507, ibid
110. C. J. Lin, W. J. Wei, T. Iwai, C. W. Hong, and P. Greil, 1999, "DEM simulation of particle-particle interaction dynamics in the aerosol powder bed during the MOCVD processing," EuroMat 99, 9/24-26, 1999, Muchen, Germany
111. W. J. Wei, (invited talk), 1999, "Electrokinetic properties of nano-sized SiC particles in highly concentrated electrolyte solution," 5<sup>th</sup> IUMRS International Conf. Adv. Mat'l (IUMRS-ICAM'99), June 13-18, Beijing, China
112. W. J. Wei, 1999, "Engineering of ultrafine theta-phase alumina for high strength application," 5<sup>th</sup> IUMRS International Conf. Adv. Mat'l (IUMRS-ICAM'99), June 13-18, Beijing, China
113. S. C. Wang and W. J. Wei, 1999, "Composite electro-plating of Ni-layers with ultra-fine ceramic particles," 5<sup>th</sup> IUMRS International Conf. Adv. Mat'l (IUMRS-ICAM'99), June 13-18, Beijing, China
114. H. C. Kao, P.C. Wang, W. J. Wei, C.K. Cheng, 1999 "Evaluation of material and mechanical properties of high performance ceramic femoral heads," 5<sup>th</sup> IUMRS International Conf. Adv. Mat'l (IUMRS-ICAM'99), June 13-18, Beijing, China
115. W. J. Wei, 1998, "Drying kinetics of Al<sub>2</sub>O<sub>3</sub> wet cake prepared by colloidal filtration," First China International Conference on High-Performance Ceramics (CICC-1), Oct. 31 to Nov. 3, 1998, Beijing,
116. W. J. Wei, C. L. Chen, T. M. Wu, 1998, "Oxidation reaction of Mo in nano-sized Mo/Al<sub>2</sub>O<sub>3</sub> composite," First China International Conference on High-Performance Ceramics (CICC-1), Oct. 31 to Nov. 3, 1998, Beijing
117. W. J. Wei, Y. P. Lin, 1998, "Mechanical and thermal shock properties of size grinding MgO-PSZ refractory," pp. 378-383, proceeding of the third International Symposium on Refractories (IRS'98), No. 3 to Nov. 6, 1998, Beijing
118. W. J. Wei, P.-C. Wang, 1998, "Microstructural Optimization of Alumina Prepared from Ultrafine Theta-Phase Powder for High Strength Applications," Proc. 2<sup>nd</sup> Intern. Sym. on Sci. Eng. Ceram. (EnCera'98), CSJ Series Publication of Ceram. Soc. Jpn, Vol. 2, Key Eng. Materials Vols. 161-163
119. W. Wei, J. S. Lee, 1997, "Formation and reaction kinetics of Mo and Mo silicides in the preparation of MoSi<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> composites," The Am. Ceram. Soc., 99<sup>th</sup> Annual Meeting & Exposition, May 4-7, 1997, Cincinnati, Ohio, USA
120. M. H. Lo, W. Wei, 1996, "Preparation of Al<sub>2</sub>O<sub>3</sub>/Mo composite via chemical route and spray drying," 98th Annual Meeting of ACerS, April 14-17 (1996)
121. W. Wei, H.C. Kao, M. H. Lo, 1994, "Phase transformation and grain refinement of zirconia/mullite composites," Workshop of "Mullite '94," Sep. 7-9, 1994, Iresee, FRG
122. W. Wei, H.C. Kao, 1994, "Zirconia/mullite composite prepared from sol-gel process," Intern. Conf. Ceram. Processing Sci. Tech., Sep. 11-14, 1994, Friedrichshafen, FRG
123. B. K. Yu, W. Wei, 1993, "Characterization of colloidal dispersion process of submicron alumina," (SXI-5) Am. Ceram. Soc. 1993 Pac Rim Meeting, Nov. 7-10, 1993, Honolulu, Hawaii, USA
124. Y.F. Ho, W.J. Wei, 1992, "Study of solid solution of zirconia in reaction sintered zirconia-mullite composite", April 1992, Am. Ceram. Soci. 94th Annual Meeting, Minneapolis, MN, USA
125. M.H. Luo, W.J. Wei, 1992, "Microstructural analysis of the interface between YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-x</sub> and Ag/Pd alloys", April 1992, Am. Ceram. Soci. 94th Annual Meeting, Minneapolis, MN, USA
126. T.T. Lin, C.F. Lin, W. J. Wei, 1992, "Microstructural analysis of copper hydroxide/oxide stabilized in cementitious matrix", April 1992, Am. Ceram. Soci. 94th Annual Meeting, Minneapolis, MN, USA
127. W. Wei, J.W. Halloran, T.E. Mitchell, 1992, "Dislocations and pores in mullite from diphasic gel", pp.629-630, Aug. 2-7, 5th Asia-Pacific Electron Microscopy Conference (5APEM), Beijing, China
128. R. R. Lee and W. Wei, 1991, "Fabrication, microstructure and properties of SiC-AlN ceramic alloys", Ceram. Eng. Sci. Proc. **11** [7-8] pp.1094-1121 (1991)
129. T.M. Wu, W. Wei, S. E. Hsu, 1991, "Enhanced oxidation resistance of multilayer coated carbon/carbon composite", Proc. of 15th Annual Conf. on Composite & Advanced Ceramic Materials, Jan. 1991, Cocoa Beach, Fl., Am. Ceram. Soc.
130. W. Wei, J.W. Halloran, 1989, "Grain boundary phase in pressureless sintered SiAlON", April 1989, Am. Ceram. Soci. 91st Annual Meeting
131. W. Wei, R.R. Lee, 1989, "Effects of oxide additives in the sintering AlN-SiC composites", April 1989, Am. Ceram. Soci. 91st Annual Meeting
132. W. C. Wei, J. W. Halloran, 1986, "Sintering and microstructure of alumino-silicate gels", April 1986, American Ceramic Society 88th Annual meeting
133. W. C. Wei, J. W. Halloran, 1986, "Mullite formation of diphasic alumino-silicate gels: kinetics and structure evolution"; April 1986, American Ceramic Society 88th Annual Meeting

134. W. C. Wei, J.W. Halloran, 1985, "Structure evolution of silica sols and gels", May 1985, American Ceramic -Society 87th Annual Meeting

### (B) 研討會論文 (Local Conference Paper)

1. 楊庭懿、韋文誠，"參雜過渡金屬離子之二氧化鋯電解質燒結性能和電性表現研究，" 2019 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，東華大學，5/17-18/2019
2. 李坤翔、韋文誠，"液態酒精燃料用於中溫型固態燃料電池之研究，" ibid
3. 李廷恩、韋文誠，"應用賽局理論於含有廢棄玻璃之中溫型鑄造耐火材料發展，" ibid
4. 韋文誠，"鋰電池回收，" 2019 (三門峽)新能源汽車產業發展論壇，" 河南三門峽市，5/10-12/2019
5. 韋文誠，"Analysis of hot melt-extrusion (ME) of ceramic based materials by 3D printing," 第 13 屆海峽兩岸工程材料研討會，3/21-3/23/2019，屏東科大，
6. 李廷恩，韋文誠，"鋇矽硼鋁系封裝玻璃製備及潤濕性質測試"，2018 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，台北科大，5/18/2018
7. 李坤翔、韋文誠、黃馨儀，"生質燃料的社會成本分析及陶瓷催化物進行燃氣重整的機會探討。" 2018 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，台北科大，5/18/2018
8. Y. H. Cheng (鄭聿竑)\*<sup>4</sup>, J. Chiu, W. C. J. Wei, "Sintering behavior and long-term degradation of Bi, Mn, Fe-doped ceria electrolyte materials," 2018 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，台北科大，5/18/2018
9. Y. C. Lin (林雨芊) \*<sup>5</sup>, W. C. J. Wei, "Catalytic properties of Cu-Ni anode in SOFCs," 2018 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，台北科大，5/18/2018
10. Y. W. Bai (白逸紋), W. C. J. Wei, "Study on effects of Al<sub>2</sub>O<sub>3</sub> additive on melting and optical properties of Ca-AL-Si-oxide glass," 2018 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，台北科大，5/18/2018
11. T. Y. Young (楊庭懿), W. C. J. Wei, "Effects of FeO<sub>x</sub> additive on sintering behavior and conductivity of BaZr<sub>0.1</sub>Ce<sub>0.7</sub>Y<sub>0.2</sub>O<sub>3-δ</sub> ionic conductor," 2018 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，台北科大，5/18/2018
12. 韋文誠，"Renewable energy from gasification/purification of MSW integration with SOFCs," 第 12 屆海峽兩岸工程材料研討會，1/11-1/14/2018，中國機械工程學會，哈爾濱，大陸
13. 韋文誠，"Fundamentals and practice of hot melt extrusion process for ceramics by additive," manufacturing," 第 11 屆海峽兩岸工程材料研討會，3/23-3/25/2017，元智大學，桃園
14. 陳彥友，韋文誠，"Scientific forensics of simulated Ru-porcelain (汝青瓷) with reflectively optic effects," 第 11 屆海峽兩岸工程材料研討會，3/23-3/25/2017，元智大學，桃園
15. 王柏歲\*<sup>6</sup>，韋文誠，"一種輕型高溫熱熔擠出件應用於熔擠成型製程，" 2016 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，屏東，5/20-5/21/2016
16. 陳冠宇\*<sup>7</sup>，柯欣怡，張源開，韋文誠，"應用於固態燃料電池之都市固體廢棄物氧化性質及燃氣重整研究，" 2016 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，屏東，5/20-5/21/2016
17. 王丹\*，陳好涵，韋文誠，"(BiSr)(FeM)O<sub>3</sub> (M=Ni,Co and Mn) cathode materials for SOFC," 2016 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，屏東，5/20-5/21/2016
18. 黃怡婷\*，范乃中，韋文誠，"3D 列印製作氧化新催化材之技術開發，" 2016 台灣陶瓷學會年會暨科技部專題研究計畫成果發表會，屏東，5/20-5/21/2016
19. 韋文誠(邀請演講)，2015，"Conductivity mechanisms of mixed ionic-electronic (MIE) conductors of M<sub>0.6</sub>Sr<sub>0.4</sub>Tm<sub>x</sub>Fe<sub>1-x</sub>O<sub>3</sub> (M=La, Pr, Bi, Tm=Co, Mn, Ni) for IT-SOFC," 第二屆海峽

<sup>4</sup> 本文榮獲台灣陶瓷學會 2018 年會陶業論文競賽碩士組佳作獎。

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<sup>6</sup> 榮獲第五屆許自然陶業創新獎第三名。

<sup>7</sup> 榮獲台灣陶瓷學會年會陶業論文競賽碩士組佳作獎。

兩岸功能材料科技與產業峰會(2015)，8/21-8/24，廈門，大陸

20. 韋文誠(邀請演講)，2015，”Synthesis and property study of Cu-based anode on Sm-doped CeO<sub>2</sub> (SDC) electrolyte for IT-SOFC,” 第十屆海峽兩岸工程材料研討會(2015)，8/14-8/17，包頭，大陸
21. 陳好涵、韋文誠、郭俞麟，”Synthesis and study on mixed ionic-electronic (MIE) conductivity of (M<sub>0.6</sub>,Sr<sub>0.4</sub>)(Co<sub>0.2</sub>,Fe<sub>0.8</sub>)O<sub>3-δ</sub> cathode materials (M=Ca, Pr) for IT-SOFCs,” 2015 中華民國陶瓷研究學會年會學術論文暨科技部陶瓷研究計畫成果發表會，5/22/2014，台北劍潭
22. Y. Ke, W. C. J. Wei, “Gasification of low-carbon city wastes for SOFCs,” 2015 中華民國陶瓷研究學會年會學術論文暨科技部陶瓷研究計畫成果發表會，5/22/2014，台北劍潭
23. Dan Wang, W. C. J. Wei, “Synthesis and evaluation of Ni-doped BiSrFeO<sub>3</sub> perovskite as cathode of solid oxide fuel cells,” 2015 中華民國陶瓷研究學會年會學術論文暨科技部陶瓷研究計畫成果發表會，5/22/2014，台北劍潭
24. 周志勳、韋文誠, “銅基陽極燃料電池之開發及測試，” 2015 中華民國陶瓷研究學會年會學術論文暨科技部陶瓷研究計畫成果發表會，5/22/2014，台北劍潭
25. 韋文誠\*、薛承輝、王文言、倪國裕、薄慧雲，”高硬度及輕量化的抗彈陶瓷材料研究”，103 年度中科院國防科技學術合作計畫成果發表會，11/13~14/2014，龍潭
26. 張傳承\*、廖沂嘉、韋文誠、陳幼良、黃欽裕、巫孟樵，”陶瓷材料改質與陶瓷疊層板抗彈性能研究”，103 年度中科院國防科技學術合作計畫成果發表會，11/13~14/2014，龍潭
27. S. Y. Ke, W. C. J. Wei\*, C. C., “Thin electrolyte layers prepared by high power laser deposition (HPLD),” 第九屆海峽兩岸工程材料研討會，11/7-11/8/2014，成大，台南
28. 陳好涵、韋文誠，”Synthesis and characterization of (M,Sr)(Co,Fe)O<sub>3-δ</sub> (M=La, Bi, Pr) cathode materials for IT-SOFCs,” 2014 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，5/22~5/23/2014，台灣大學，台北
29. 張源開、韋文誠，”Effect of KCO<sub>3</sub> and Ni-CeO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> on biomass gasification and syngas reforming for SOFC,” 2014 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，5/22~5/23/2014，台灣大學，台北
30. 柯欣怡、陳牧民、韋文誠，”Study on processing parameters of high power laser deposition (HPLD),” 2014 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，5/22~5/23/2014，台灣大學，台北
31. W. C. J. Wei (邀請演講), 2014, “Glass ceramics for sealing and interconnect of IT-SOFC-Quaternary BaO-B<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> glass ceramics,” Workshop on SOFCs with lower cost and longer time, 3/17-3/18(2014)，徐州，中國大陸
32. W. C. J. Wei, 2013, “Synthesis and characterization of mono-dispersed phosphor particles in core-shell structure,” 第八屆海峽兩岸工程材料研討會，10/25-10/28 (2013) 西安、中國大陸
33. 韋文誠 (邀請演講)，2012, ”Conductivity analysis on the hetero junction of multiple nano-structural layers,” 11/23-24, 2012 中國材料科學研究學會年會暨第七屆海峽兩岸工程材料研討會，雲林虎尾大學
34. 劉立德\*、林廷諭、韋文誠、黃仲偉、薛承輝、李俊德，2012，”Effective thermal expansion behavior in 2D multilayer Ni-(BaTiO<sub>3</sub>) structures,”(poster) 11/23-24, 2012 中國材料科學研究學會年會暨大七屆海峽兩岸工程材料研討會，雲林虎尾大學
35. K. Y. Chen, C. W. Huang, Marlaw Wu, W. C. J. Wei, C. H. Hsueh, “Advanced characterization of mechanical properties of multilayer ceramic capacitor,” (poster) ibid,
36. 林廷諭、韋文誠，”Characterization and electrochemical performance of LSCF6428-based composite layer in cathode for IT-SOFC,” 2012 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2012/5/25，聯合大學，苗栗
37. 賴佑瑋、韋文誠，”Phase compatibility, crystalline structures and electrical conductivities of Bi-V-O and Bi-V-Ca-O material systems,”2012中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2012/5/25，聯合大學，苗栗
38. 胡宜昌、韋文誠，”Ionic conductivity of mullite-type (Bi<sub>2-x</sub>,Ca<sub>x</sub>)Al<sub>4</sub>O<sub>9</sub> materials,”2012 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2012/5/25，聯合大學，苗栗
39. 韋文誠 (邀請演講),”Long-term electric conductivity of Co-doped Bi<sub>2</sub>O<sub>3</sub> solid electrolytes for SOFC,”第六屆海峽兩岸工程材料研討會，11/8-11/11/2011，南京工業大學，南京
40. 胡宜昌、韋文誠，”莫來石結構的(Bi<sub>2-x</sub>,Ca<sub>x</sub>)Al<sub>4</sub>O<sub>9</sub>與LSCF(鑭鋨鈷鐵)形成SOFC活化層之研究”，

2011中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2011/5/28，大同大學，台北

41. 戴字庭、翁靜閎、韋文誠，”Homogeneity analysis and phase transformation of Y-, Nb doped Bi<sub>2</sub>O<sub>3</sub> electrolyte”，2011 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2011/5/28，大同大學，台北
42. 郭子期、韋文誠，”Effect of atmosphere on Bi<sub>2</sub>O<sub>3</sub>-based materials”，2011 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2011/5/28，大同大學，台北
43. 劉立德、林頌恩、賴佑緯、韋文誠，”參雜少量五價氧化物於氧化鉻之為結構與離子導電性探討”，2011 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2011/5/28，大同大學，台北
44. 廖大維、韋文誠，”濺鍍白金於多層陶瓷玻璃之微型加熱器”，2011 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2011/5/28，大同大學，台北
45. 莊士岳、黃勤文、韋文誠，2010，”具莫來石結構之Bi<sub>2-x</sub>CaxAl<sub>4</sub>O<sub>9-d</sub>之固相合成與電性之研究”，2010中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2010/5/28，中興惠蓀農場，南投
46. 黃于珈、王錫福、徐永富、韋文誠、盧錫全、葉俊廷，2010”磁控濺鍍法製備鈮參雜氧化鉻電解質薄膜之研究，”(同上)
47. 許秀慧、李忠哲、王錫福、徐永富、吳玉娟、韋文誠，2010，以水熱合成法製備Bi<sub>1-x</sub>Nb<sub>x</sub>O<sub>1.5+δ</sub>粉體與其特性之研究，”(同上)
48. 林浚傑、韋文誠(邀請演講)，2009，”Liquid Phase Sintering of BaTiO<sub>3</sub> Ceramic Capacitor with Mn-Si-O Glass Addition,”能源電子陶瓷研討會暨在地型學界科專報告，10/23，高雄，
49. 林頌恩、韋文誠(邀請演講)，2009，”中溫固態燃料電池之矽酸封裝玻璃之合成及長時間測試，”2009中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2009/5/22，台灣科大，台北
50. 林俊傑、韋文誠，2009，”Sintering mechanism, microstructural evolution and de-densification of Y/S coated-BaTiO<sub>3</sub> with Mn-Si-O glass addition,”2009中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2009/5/22，台灣科大，台北
51. 張智淵、韋文誠，2009，”Optimization of parameters for aqueous tape casting of Ba-B-Si-Al-O glass by Taguchi method,” 2009中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2009/5/22，台灣科大，台北
52. 翁敬閎、韋文誠，2009，”Colloidal properties and homogeneity of Nb-doped bismuth oxide,” 2009 中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2009/5/22，台灣科大，台北
53. 黃勤文、韋文誠、陳俊杉，2009，”原子層級模擬氧化鉻基電解質之離子導電行為，”2009中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2009/5/22，台灣科大，台北
54. 莊士岳、韋文誠，”Fabrication of homogeneous Bi<sub>2</sub>Al<sub>4</sub>O<sub>9</sub> by colloidal process,” 2009中華民國陶瓷研究學會學術論文暨陶瓷研究計畫成果發表會，2009/5/22，台灣科大，台北
55. 韋文誠，(邀請演講)，2008，”固態氧化物燃料電池材料與技術”，中國礦冶工程學會97年會，專題討論會，2008/10/21，台北國家圖書館會議廳；我國能源現況與能源科技研討會，2008/12/12,東南科技大學主辦
56. 韋文誠，(邀請演講)，2008，”Crystallization kinetics of a BaO-B<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> (G1A5) glass sealant for SOFC,”第四屆海峽兩岸工程材料研討會，”9/4-9/6/2008，廣西大學，南寧
57. 韋文誠，(邀請演講)，2008，”輕質多孔陶瓷的熱傳與光輻射阻隔之應用研究”，2008年耐火材料應用及技術研討會，2008/8/21，中鋼，高雄
58. 林頌恩、韋文誠，”Photo-luminescence Properties of Photonic Bandgap (PBG) Crystals,“2008中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/8，台中，逢甲大學
59. 翁敬閎、韋文誠，2008, ”Colloidal Processing and Property Investigation of Doped Bismuth Oxide,” 2008中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/8，台中，逢甲大學
60. Han-Yu Hsieh, S. E. Lin, W. C. J. Wei, 2008 “Synthesis and Characterization of SiO<sub>2</sub> Photonic Bandgap Crystal Coated with ZnSiO<sub>4</sub>:Mn Phosphor,”2008中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/8，台中，逢甲大學
61. 駱嬿雯、韋文誠，2008，”多孔陶瓷材料的熱絕性”2008中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/8，台中，逢甲大學
62. 陳怡如、韋文誠，2008，”一種BaO-B<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub>玻璃系統的結晶動力學探討”，2008中

- 華民國陶瓷研究學會年會暨學術論文發表會，2007/5/8，台中，逢甲大學
63. 林浚傑、韋文誠，2008，”Melting Behavior of Mn-Si-O Glass on BaTiO<sub>3</sub>”2008中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/8，台中，逢甲大學
  64. 韋文誠(邀請演講)，2007，”Development of micro-solid oxide fuel cells (Micro-SOFCs),”第三屆海峽兩岸工程材料研討會暨2007中國材料科學學會年會，2007/11/16-17，交大，新竹
  65. 林頌恩、韋文誠，2007，”Optical properties of mono-dispersed spherical Y<sub>2</sub>O<sub>3</sub>:Re<sup>3+</sup> and SiO<sub>2</sub>@Y<sub>2</sub>O<sub>3</sub>:Re<sup>3+</sup> phosphor particles,”(poster) 2007中國材料科學學會年會，2007/11/16-17，交大，新竹
  66. 翁敬閔、韋文誠，2007，”Processing and characterization of Niobium-doped Bismuth oxide,”(poster) 2007中國材料科學學會年會，2007/11/16-17，交大，新竹
  67. 駱嫵雯、林浚傑、韋文誠，2007，”Hydration kinetics of oxide powders at ambient temperature,”(poster) 2007中國材料科學學會年會，2007/11/16-17，交大，新竹
  68. 韋文誠(邀請演講)，2007，”固態燃料電池元件之界面分析,”2007中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/22，新竹
  69. 甘家嘉、韋文誠，2007，”Synthesis and characterization of Nb nano-coating BaTiO<sub>3</sub> core-shell structure,”(poster) 2007中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/22，新竹
  70. 游哲彥、韋文誠，2007，”GDC fibers modified YSZ electrolyte for IT-SOFC,” (poster) 2007中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/22，新竹
  71. 陳右儒、韋文誠，2007，”Thermal properties and modification of Bi<sub>2</sub>O<sub>3</sub>-ZnO-SiO<sub>2</sub>-B<sub>2</sub>O<sub>3</sub> quaternary glass system joint with YSZ,”(poster) 2007中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/22，新竹
  72. 陳怡如、韋文誠，2007，”BaO-B<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-Al<sub>2</sub>O<sub>3</sub> glass ceramic materials as sealant for solid oxide fuel cell,” (poster) 2007中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/22，新竹
  73. 謝函育、韋文誠，2007，”Synthesis and characterization of spherical SiO<sub>2</sub> particles coating with Mn-doped ZnSiO<sub>4</sub> shell phosphor,” (poster) 2007中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/22，新竹
  74. \*<sup>8</sup>林頌恩、韋文誠，2007，”Synthesis and investigation of sub-micron spherical indium hydrate and oxide particles,“(poster) 2007中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/22，新竹
  75. \*<sup>9</sup>林浚傑、韋文誠、蘇哲儀，2007，”Microstructural analysis of Ni-BaTiO<sub>3</sub> based MLCC device by reoxidation,” (poster) 2007中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/22，新竹
  76. \*<sup>10</sup>黃勤文、韋文誠，2007，”Investigation on mechanical properties of low-zirconia ZTA with produced by colloidal process,” (poster) 2007中華民國陶瓷研究學會年會暨學術論文發表會，2007/5/22，新竹
  77. \*<sup>11</sup>張智淵、韋文誠，2007, ”Silver diffusion in La-Si-B-O-mullite glass ceramics controlled by interfacial pitting,” 2007中華民國陶瓷研究學會年會暨學術論文發表會，大學組論文比賽，2007/5/22，新竹
  78. 翁銘璁，黃勤文、韋文誠，2006，”以膠粒製程製備之氧化鋁/氧化鎵複合材磨耗性質之研究,” 第五屆磨粒加工技術論文發表會，台灣科大，12/22
  79. S. E. Lin, J. F. Li, W. C. J. Wei, ”Investigation of making perfect PBG crystal with design template by computer simulation,”(poster) Taiwan Nano-X Exhibition, Se. 27-30, 2006
  80. S. E. Lin, W. C. J. Wei, ”Various indium hydrate particle synthesized in aqueous system for PBG crystals,”(poster) Taiwan Nano-X Exhibition, Se. 27-30, 2006
  81. J. M. Sung, S. E. Lin, W. C. J. Wei, ”Synthesis and reaction kinetics of monodispersive spherical phosphor particles,”(poster) Taiwan Nano-X Exhibition, Sep. 27-30, 2006
  82. \*<sup>12</sup>虞邦英、韋文誠，2006，”Tabular Al<sub>2</sub>O<sub>3</sub> formation from diphasic sol coating on porous alumina substrate below eutectic point ,”中華民國陶業研究學會95年年會暨國科會陶瓷研究計畫成果

<sup>8</sup>本篇論文獲得九十六年大專院校陶瓷系所在校學生有獎徵文博士組論文優等

<sup>9</sup>本篇論文獲得九十六年大專院校陶瓷系所在校學生有獎徵文博士組論文優等

<sup>10</sup>本篇論文獲得九十六年大專院校陶瓷系所在校學生有獎徵文大學組論文第一名

<sup>11</sup>本篇論文獲得九十六年大專院校陶瓷系所在校學生有獎徵文大學組論文第二名

<sup>12</sup>本篇論文獲得九十五年博士組論文優等

發表會，台北福華會館，5/30/2006

83. \*<sup>13</sup>翁銘璁、韋文誠，2006, "Grain size influence on the mechanical properties and transformation in ZTA composite,"中華民國陶業研究學會95年年會暨國科會陶瓷研究計畫成果發表會，台北福華會館，5/30/2006
84. 陳右儒、韋文誠，2006, "Bi-Zn-Si-O 玻璃系統與YSZ 接合之界面分析，ibid
85. 游哲彥、韋文誠，2006, "氧化釤添加氧化鈰/錳酸鑭氧化物複合電極之製備，"ibid
86. \*<sup>14</sup>宋佳明、林頌恩、韋文誠，2006, "單一粒徑分佈氧化釤摻鋯球形螢光材料的反應動力學分析，"ibid
87. \*<sup>15</sup>陳怡如、韋文誠，2006, "BaO-B<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>玻璃系統作為板型燃料電池封裝結合材料性質之探討，ibid
88. \*<sup>16</sup>林浚傑、韋文誠，2005, "奈米氧化鋁緻密化機制的探討"， 2005耐火材料應用及技術研討會論文集，pp.31-34，高雄
89. 韋文誠(邀請演講)，虞邦英，甘家嘉、李劍鋒，陳俊杉，2005, "奈米陶瓷的均質鍍膜-以氧化矽光閘晶體為例"，奈米科技研習會，大漢技術學院，2005/6/3
90. 韋文誠(邀請演講)，虞邦英，林頌恩，宋佳明，甘家嘉， Dr. K. Borgohain、李劍鋒，陳俊杉，，2005, "奈米粉體在光訊路(Optical Circuitry)之應用及研究"，成功大學粉體製備科學與技術研討會，2005/5/24
91. Jerry Lin, W. J. Wei, 2005, "Two step sintering behavior of Al<sub>2</sub>O<sub>3</sub> and preparation of porous Al<sub>2</sub>O<sub>3</sub>，"中華民國陶業研究學會94年年會暨國科會陶瓷研究計畫成果發表會，台南，5/25/2005
92. B. Y. Yu, W. J. Wei, 2005, "High temperature gradient ceramic filter material-tabular Al<sub>2</sub>O<sub>3</sub> and acicular mullite formation on alumina substrate below eutectic point，" ibid,
93. C. H. Mong, W. J. Wei, 2005, "Investigation of PZT thin film on Si wafer by ion beam sputtering deposition (IBSD)," ibid
94. Y. Y. Chen, W. J. Wei, 2005, "Characterization of yttria doped ceria (YDC) thin film electrolyte and interfacial reactions between YDC/YSZ nanocomposite，" ibid
95. \*<sup>17</sup>王郁茹，韋文誠，2005, "銀電極與氧化鑭-氧化矽-氧化硼-莫來石玻璃陶瓷共燒之界面反應，"ibid
96. 陳馨怡，韋文誠，陳俊杉，2005, "分散劑在α-氧化鋁表面之吸附研究，"中華民國陶業研究學會94年年會暨國科會陶瓷研究計畫成果發表會，台南，5/25/2005
97. W. J. Wei, B. Y. Yu, J. F. Li, C. S. Chen, 2005, "Controlled nano-oxide layer coating on fine particles with multiple optical-electrical function，"第四屆海峽兩岸複合材料研討會，3/28-3/29/2005
98. B. Y. Yu, W. C. Wei, 2004, "Gradient ceramic filter material-platy and acicular mullite on Al<sub>2</sub>O<sub>3</sub> substrate，" Chin. Soc. Mat. Sci., Annual Meeting, Nov. 17-18, Hsin-Chu, 2004
99. H. Y. Chen, W. J. Wei, C. S. Chen, 2004 "Molecular dynamics simulation of nano-sized alumina dispersions with polyelectrolyte，" Taiwan Nano Tech 2004, Sep. 6-8, 2004, Taipei, ROC
100. S. E. Lin, W. J. Wei, 2004 "Investigation on precipitation of mono-dispersive In<sub>2</sub>O<sub>3</sub> and SrIn<sub>2</sub>O<sub>4</sub> particles，" Taiwan Nano Tech 2004, Sep. 6-8, 2004, Taipei, ROC
101. B. Y. Yu, W. J. Wei, 2004 "Heterogeneous aggregation of nano-TiO<sub>2</sub> layer on Stober's Silica，" Taiwan Nano Tech 2004, Sep. 6-8, 2004, Taipei, ROC
102. W. J. Wei, H. J. Liaw, 2004 "Fracture toughness and thermal shock properties of calcium aluminate composite with controlled duplex structure，" Material Review, Vol 18, 8A, 60-63 (2004), 海峽兩岸第二屆工程材料研討會，8/20-22/2004
103. \*<sup>18</sup>B. Y. Yu, W. C. J. Wei, 2004 "Structural Investigation of Mullite film from diphasic gel，" 2004 年耐火材料應用及技術研討會，高雄，中鋼，2004/08/04
104. \*<sup>19</sup>R. Y. Wu, W. Wei, 2004 "Homogeneous zirconia feedstocks prepared by various kneading mechanisms，"中華民國陶業研究學會九十三年年會學術暨國科會陶瓷研究計畫成果發表會，

<sup>13</sup>本篇論文獲得九十五年碩士組論文組第三名

<sup>14</sup>本篇論文獲得九十五年碩士組論文組第一名

<sup>15</sup>本篇論文獲得九十五年大專組論文組第三名

<sup>16</sup>本篇論文獲得 2005 年論文獎第二名

<sup>17</sup>本篇論文獲得九十四年碩士論文組佳作

<sup>18</sup>本篇論文獲得 2004 年論文獎第二名

<sup>19</sup>本篇論文獲得九十三年度博士論文獎優等

- 台北，台北科大，pp. 29-32
105. B. Y. Yu, Y. Y. Chen, W. C. J. Wei, 2004 "Microstructural observation of mullite thin film coated on Al<sub>2</sub>O<sub>3</sub> substrate," *ibid*, pp. 48-52
106. \*<sup>20</sup>S. E. Lin, W. Wei, 2004, "Synthesis and characterization of mono-dispersive Indium oxide," *ibid*, pp. 61-71
107. 孟慶豪, 韋文誠, 2004, 熱效應對純氧化鋯於水溶液之Zeta表面電位影響", *ibid*, pp. 104-110
108. H. Y. Chen, W. Wei, C. S. Chen, 2004, "Molecular dynamics (MD) simulation of different polymer interaction with alumina surfaces," *ibid*, pp. 133-141
109. 王郁茹, 韋文誠, 2004, "低溫共燒陶瓷薄帶與銀電極之界面反應研究", *ibid*, 197-201
110. Y. H. A. Lee, W. C. J. Wei, 2004, "Processing and characterization of La<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-B<sub>2</sub>O<sub>3</sub> based glass-ceramics for LTCC application," *ibid*, pp. 210-218
111. 陳彥友, 李亮志, 韋文誠, 2003, "矽酸鋯基陶瓷材料之耐磨性的比較", 2003年耐火材料應用及技術研討會, 中鋼, 高雄, 9/4/2003
112. 吳榮源, 韋文誠, 2003, "超微陶瓷粉體射出成形胚料之混練與均勻度研究", 中華民國陶業研究學會九十二年年會學術暨國科會陶瓷研究計畫成果發表會, 台北, 大同大學, pp. 95-98
113. 李耀輝, 韋文誠, 2003, "奈米級陶瓷粉末之紅外線吸收光譜定量分析", *ibid*, pp. 139-142
114. \*<sup>21</sup>T. Y. Yu, W. J. Wei, S. F. Wang, 2003, "Formation mechanism of Ba<sub>2</sub>Ti<sub>9</sub>O<sub>20</sub> phase by ZrO<sub>2</sub> additive," *ibid*, p.143
115. \*<sup>22</sup>T. Yang, W. J. Wei, 2003, "Fabrication and characterization of folderable porous Ni-Y-stabilized zirconia anode electrode thin layer," *ibid*, pp. 212-221
116. \*<sup>23</sup>J. H. Wen, W. J. Wei, 2003, "Oxidation kinetics and microstructure of LaB<sub>6</sub> in oxygen rich conditions," *ibid*, pp. 222-226
117. 吳榮源, 韋文誠, 邊秉成, 2002, "噴霧造粒之氧化鋯粉體射出件之性質分析", 中國材料學會2002年年會, 台北, 臺灣大學, 11/22-23 (2002)
118. 溫宗翰, 韋文誠, 吳宗明, 2002, "六硼化鑭(LaB<sub>6</sub>)高溫氧化動力行為探討", *ibid*
119. 林慶章, 陳志榮, 翁炳志, 趙樹漢, 陳崇一, 吳宗明, 韋文誠, 陳婷瑋, 2002, "溶凝氧化矽微波視窗之製程及其應用", *ibid*
120. 許恆瑞, 王聖璋, 韋文誠, 2002, "溶膠凝膠法製備錳酸鋨薄膜電極", *ibid*
121. C. C. Yang, W. J. Wei, 2002, "Interfacial reactions between 8 mol% yttria stabilized zirconia and La<sub>0.65</sub>Sr<sub>0.3</sub>MnO<sub>3</sub>," The Chinese Materials Society, 2002 Annual Meeting, NTU, Taipei, ROC, 11/22-23 (2002)
122. C. C. Yang, S. C. Wang, W. J. Wei, 2002, "Electric conductivity of La<sub>0.65</sub>Sr<sub>0.3</sub>MnO<sub>3</sub>-8 mol% yttria-stabilized zirconia," *ibid*
123. B. Y. Yu, W. J. Wei, 2002, "Synthesis of Mono-dispersive SiO<sub>2</sub> Core/TiO<sub>2</sub> shell particles," 中國材料學會2002年年會, 台北, 臺灣大學, 11/22-23 (2002)
124. Y. Y. Chen, W. J. Wei, 2002, "Preparation of mesoporous zirconia by liquid crystal template method," *ibid*
125. T. Y. Wu, W. J. Wei, 2002, "Quantitative analysis of the formation of Ba<sub>2</sub>Ti<sub>9</sub>O<sub>20</sub> phase," *ibid*
126. W. Wei, T. W. Chen, 2002, "Ripening of SiO<sub>2</sub> particles in Stober's process," 中國顆粒學會2002年年會暨海峽兩岸顆粒技術研討會, 廣西桂林, 11/3-11/7/2002
127. S. C. Wang, W. J. Wei, 2001, "Processing and characterization of nanosized SiC/Ni composite by electrolytic codeposition," 第二屆海峽兩岸陶瓷基及金屬基複合材料研討會, 台中中興大學, 11/23-11/24/2001
128. Y. Y. Chen, W. J. Wei, 2001, "Preparation of mullite coating on porous alumina for filtration application," 中國材料科學學會2001年年會, 台中中興大學, 11/23-11/24/2001
129. B. Y. Yu, W. J. Wei, W. S. Lee, 2001, "Microstructural characterization of MLCC (X7R)," *ibid*
130. \*<sup>24</sup>C. C. Yung and W. J. Wei, 2001, "Study on the High Temperature Interfacial Reactions of Electrolyte Ceramics with Electrodes," *ibid*
131. Y. Y. Chen, W. J. Wei, 2001, "Formation of multiple layer composites with alternated mullite and

<sup>20</sup>本篇論文獲得九十三年度碩士論文獎第二名

<sup>21</sup>本篇論文獲得九十二年度碩士論文獎第一名

<sup>22</sup>本篇論文獲得九十二年度博士論文獎優等

<sup>23</sup>本篇論文獲得碩士論文獎第二名

<sup>24</sup>本篇論文獲得中國材料學會論文競賽, C 組: 複合、生醫、儲能、光電材料第一名(90/11/24頒發)

- $\text{Al}_2\text{O}_3$  thin layers,” 中華民國陶業研究學會九十年年會學術暨國科會陶瓷研究計畫成果發表會 , pp. 66- 70 , 文化大學 , 5/19/2001 , 台北
132. R. Y. Wu, P. N. Tsai, W. J. Wei, 2001, “Thermal shock properties of dense MgO-PSZ,” ibid, pp. 183-186
133. 陳婷瑋、韋文誠，2001，“中界結構內單一形式二氧化矽陶瓷顆粒之合成與組合”，ibid, pp. 264-269
134. 許恆瑞、韋文誠，2001，“以溶膠法製配固態燃料電池(SOFC)陰極電極材料錳酸鑭薄膜”，ibid, p.270
135. B. Y. Yu, W. J. Wei, K. C. Hsu, 2001, “Surface adsorption and dispersion of  $\text{BaTiO}_3$  colloids with PDAAE,” ibid, pp. 296-299
136. C. C. T. Yang, W. J. Wei, 2001, “Observation of Ni/YSZ interface for solid oxide fuel cell,” ibid, pp. 300-303
137. S. C. Wang and W. J. Wei, 2000, “Analysis on colloidal properties of nano-sized ceramic powder and material properties of electro-plated Ni-based composite layer,” D-05 , 中國材料科學學會2000 年年會,高雄義守大學 , 11/24-11/25/2000
138. 陳志榮, 韋文誠, 吳宗明, 2000 “納米碳化鉻/氧化鋁複合材料之機械性質及其高溫氧化行為之探討”, D-22 , 中國材料科學學會2000年年會,高雄義守大學 , 11/24-11/25/2000
139. \*<sup>25</sup> R. Y. Wu, W. J. Wei, 2000, “Effect of surfactant on Mg-PSZ feedstocks for powder injection molding,” D-33 , 中國材料科學學會2000年年會,高雄義守大學 , 11/24-11/25/2000
140. \*<sup>26</sup>吳榮源、蔡鵬年、韋文誠，2000，“緻密化氧化鎂-氧化鋯(Mg-PSZ)材料之耐熱衝擊性質，”2000年耐火材料應用及技術研討會，高雄中鋼，9/21
141. 韋文誠，2000，(邀請演講), ”納米碳化矽/鎳複合電鍍之研發”，工程陶瓷應用技術研討會，國科會工程推展中心及成大材料系，台南，89/3/10
142. 李志偉、韋文誠，1999 “添加劑對氧化矽質耐火材料抗高溫鋼液及爐渣侵蝕分析”，中國材料科學學會1999年度年會論文集，光碟版880231，新竹，88/11/25-26
143. 王博祺、遲秉成、韋文誠，1999 “藉由實驗設計法分析氧化鋁最佳燒結條件之研究”，中國材料科學學會1999年度年會論文集，光碟版880201，新竹，88/11/25-26
144. 楊志忠、韋文誠，1999 “Contact wear properties of fine-grain zirconia (Y-TZP)”，中國材料科學學會1999年度年會論文集，光碟版880231，新竹，88/11/25-26
145. 林慶章、韋文誠，1999 “Characterization of nano-Mo in  $\text{Al}_2\text{O}_3$  agglomerates prepared from MCVD and fluidized bed”，中國材料科學學會1999年度年會論文集，光碟版880298，新竹，88/11/25-26
146. 李志偉、韋文誠，1999 “氧化矽質耐火材料與高溫鋼液及爐渣反應分析”，1999年耐火材料應用及技術研討會論文集，中鋼，高雄，88/10/28
147. H. C. Kao, F. Y. Ho, W. J. Wei, 1999, “Surface properties of diamond-wheel-ground alumina and zirconia ceramics,” pp. 47-52, 第二屆磨粒加工技術論文發表會論文集，台大，台北，88/7/16
148. 卓慧如、韋文誠，1999，中空氧化鋁球頭生胚乾燥行為之研究，pp. 8-12, 中華民國陶瓷研究學會88年年會學術論文暨國科會陶瓷研究計畫成果發表會論文集，台北，5/2/1999
149. 陳志榮, 韋文誠, 吳宗明, 1999, 納米級鉬／氧化鋁複合材料的高溫氧化特性及其反應動力之探討 , pp. 18-23, ibid
150. C. C. Yang and W. J. Wei, 1999, “Effects of grain size and testing parameters on wear properties of zirconia and alumina ceramics,” pp. 136-142, ibid
151. C. J. Lin, W. J. Wei, T. Iwai, C. W. Hong and P. Greil, 1999, ”DEM simulation of particle-particle interaction dynamics in the aerosol powder bed during the MOCVD processing,” p. 13, ibid.
152. 王文言、韋文誠，1999，“PZT陶瓷低壓射出成形及其胚料之熱分析”，pp. 248-251, ibid
153. 蔡鵬年、林慶章、韋文誠，1999，“陶瓷流體化床之製程參數探討”，pp. 253-257, ibid
154. S. C. Wang, K. H. Shen, C. S. Lee, W. Wei, 1998, “Ultrafine ceramic particles/Ni composite layer prepared by electro-plating,” pp. 35-38, Proceedings of the 1998 Annual Conference of the Chinese Society for Materials Science, Vol. E, Structural Ceramics, Nov. 20-21 (1998) Taipei
155. R. Y. Wu, W. Wei, 1998, “Torque evolution of alumina injection molding feedstocks during kneading,” pp. 91-94, Proceedings of the 1998 Annual Conference of the Chinese Society for Materials Science, Vol. E, Structural Ceramics, Nov. 20-21 (1998) Taipei

<sup>25</sup>本論文獲得中國材料學會論文壁報競賽第二名 (89/11/25 頒獎)

<sup>26</sup>本論文獲得中國礦冶工程學會冶金委員會耐火材料小組論文競賽第三名 (89/9/21 頒獎)

156. 何方元、韋文誠，1998，“含氧化鈦之氧化鋯(Y-TZP)粉末於水中之劣化行為”，pp. 99-102, Proceedings of the 1998 Annual Conference of the Chinese Society for Materials Science, Vol. E, Structural Ceramics, Nov. 20-21 (1998) Taipei
157. H. C. Kao, F. Y. Ho, W. J. Wei, 1998, “Plastic machining of fine grain Y-TZP,” pp. 103- 106, Proceedings of the 1998 Annual Conference of the Chinese Society for Materials Science, Vol E, Structural Ceramics, Nov. 20-21 (1998) Taipei
158. C. Y. Lung, C. K. Cheng, W. Wei, H. G. Kao, 1998, “An in-Vitro ear analysis of UHMWPE in a new hip simulator, “ 中華民國骨科醫學會87年度會員大會暨第39屆學術研討會，O-169, 87/10/2-3,台北
159. 韋文誠，1997，“碳化矽/鉬金屬複合材料之製程、界面分析及機械性質研究”，中華民國陶業研究學會八十六年年會論文集，pp.137-140, 86/5/11，台南
160. 王聖璋, 韋文誠, 1997, "納米級鉬/氧化鋁複合材料之製備與機械性質之研究", ibid, pp.123-124, 86/5/11, 台南
161. 謝長利, 韋文誠, 1997, "次微米氧化鋁膠粒成形生坯之乾燥動力研究", ibid, pp.210-215 , 86/5/11, 台南
162. 林育平, 韋文誠, "級配氧化鋯之射出成形特性探討", ibid, pp. 233-237, 86/5/11, 台南
163. 侯尚杰, 韋文誠, "細粒氧化鋁射出成形之溶劑脫脂研究", ibid, pp. 238-241, 86/5/11, 台南
164. H. J. Liaw, W. J. Wei, K. C. Wu, 1996, "Fracture toughness and thermal shock properties of calcium aluminate composite with controlled duplex structure," pp. 245-151, in Pro. 4th R.O.C. Symp. on Fracture Science, (1996), March 27-28, Nantou, ed. H. Y. Chen
165. 韋文誠、羅名宏、鄭逢輝、李建樹, 1996, "碳化矽/金屬複合材料之製程、界面分析及機械性質研究", 中華民國陶業研究學會八十五年年會論文, 85/4/21, 台北
166. 李建樹、韋文誠, 1996, "鉬/矽/碳複合粉末之反應及燒結製程研究", 中華民國陶業研究學會八十五年年會論文, 85/4/21, 台北
167. 蔡協宗、韋文誠, 1996, "氧化鋁射出成形之塑性體製備及性質分析", 中華民國陶業研究學會八十五年年會論文, 85/4/21, 台北
168. 韋文誠, 1996, "精密陶瓷射出成形(II):利用非傳統射出成形法製作高強度氧化鋁", 中華民國陶業研究學會八十五年年會論文, 85/4/21, 台北
169. 王聖璋、韋文誠, 1996, "氧化鋯粉末在水溶液中表面電位性質之分析", 中華民國陶業研究學會八十五年年會論文, 85/4/21, 台北
170. 韋文誠, 蔡協宗, 1996, "射出配料添加與混鍊次序對陶瓷射出成形性質之影響", 粉末射出成形研究成果與應用實務研討會, 85/9/13, 臺北, 臺大工綜館
171. 韋文誠, 侯尚杰, 1996, "射出成形壓力對陶瓷射出成形性質之影響", 粉末射出成形研究成果與應用實務研討會, 85/9/13, 臺北, 臺大工綜館
172. 韋文誠, 沈俊良, 姚仁寬, 1996, "黏土原料之ICP光譜成分分析探討", 1996年耐火材料應用及技術研討會, 8/9/25, 高雄, 中鋼
173. S. J. Cheng, W. Wei, 1995, "Processing characteristics of alumina and alumina/silicon carbide binary powder mixtures," Proc. 1995 Annual Conf. Chin. Soci. for Mat. Sci., Vol. II, pp. 4-5
174. S.D. Tzu, W. C. Wei, 1995, "Microstructure/mechanical property relationships for calcium aluminate composite," Proc. 1995 Annual Conf. Chin. Soci. for Mat. Sci., Vol. II, pp.338-9,
175. M. H. Lo, W. C. Wei, 1995, "Microstructural characterization of low temperature coating of molybdenum on SiC," Proc. 1995 Annual Conf. Chin. Soci. for Mat. Sci., Vol. II, pp.342-3,
176. F. H. Cheng, W. J. Wei, 1995 "Preparation of MoSi<sub>2</sub>-SiC composite precursory powders," Proc. 1995 Annual Conf. Chin. Soci. for Mat. Sci., Vol. II, pp. 396-7,
177. 李建樹、韋文誠、黃仁烜, 1995, "氧化鋁破壞強度與表面輪磨性質之研究", 中華民國陶業研究學會八十四年年會論文, 84/4/17, 新竹
178. 蔡協宗、韋文誠, 1995, "氧化鋁射出成形之田口參數設計法", 中華民國陶業研究學會八十四年年會論文, 84/4/17, 新竹
179. 廖浩嘉、韋文誠, 1995, "陶瓷塑性體之擠出流變性質研究", 中華民國陶業研究學會八十四年年會論文, 84/4/17, 新竹
180. 韋文誠、游步光、盧素珍、王立銘, 1994, "超微粒陶瓷粉末之濕式成形與燒結研究", 第二屆陶瓷研究成果及應用技術發表會, pp.94-99, 二月廿五至廿六日, 台北
181. 韋文誠、高鴻展、羅名宏, 1994, "氧化鋯複合材料之顯微結構與機械性質研究(II)-溶膠法製備氧化鋯/莫來石複合材料", 第二屆陶瓷研究成果及應用技術發表會, pp.89-93, 二月廿

五至廿六日，台北

182. 資三德、韋文誠，1994，"鈣鋁氧化物之合成及與氧化鋁複合材料製程研究"，陶業研究學會八十三年年會論文，83/4/17，新竹
183. 鄭水金、韋文誠，1994，"次微米碳化矽/氧化鋁複合材料之成形性質研究"，中華民國陶業研究學會八十三年年會論文，83/4/17，新竹
184. 鄭逢輝、韋文誠，1994，"以耐火金屬鉬鍍覆碳化矽粉體之製程研究"，陶業研究學會八十三年年會論文，83/4/17，新竹
185. S.J. Lo, W.J. Wei, 1994, "Colloidal Properties and Fracture Strength of Alumina Prepared from Ultrafine Powder," pp. 256-7, Proc. 1994 Annual Conf. Chin. Soc. Mat. Sci., April 23-24, Kaohsiung, Taiwan
186. L. M. Wang, W. J. Wei, 1994, "Pressureless sintering of high density silicon carbide," pp. 410-1, Proc. 1994 Annual Conf. Chin. Soc. Mat. Sci., April 23-24, Kaohsiung, Taiwan
187. Ming-Hung Lo, W. J. Wei, 1994, "Low temperature coating of refractory metal and carbide on SiC", pp. 616-7, Proc. 1994 Annual Conf. Chin. Soc. Mat. Sci., April 23-24, Kaohsiung, Taiwan
188. W. Wei, 1993, "Microstructure and mechanical properties of zirconia/mullite (I)", pp.36-40, Conf. of the Research and Applications of Ceramic Materials, National Science Council, 3/5-3/6 (1993)
189. L.M. Wang, W. Wei, 1993, "Wet-Processing of  $\beta$ -silicon carbide", Annual Conf. of the Chinese Ceramic Society, April 18, Taipei, Taiwan
190. S.J. Lu, W. Wei, 1993, "Properties of ultrafine alumina prepared by colloidal process", Annual Conf. of the Chinese Ceramic Society, April 18, Taipei, Taiwan
191. B.K. Yu, L.M. Wang, W. Wei, 1993, "Properties of alumina powders in dilute aqueous slurry", p. 2-141 to -142, Proc. of the 1993 Annual Conf. of the Chinese Soc. for Materials Science
192. K.H. Won, W. Wei, 1993, "Coating properties of cordierite materials on SiC coated carbon/carbon (C/C) composites", pp.7-8 in Sec. 5, Proc. of the 1993 Annual Conf. of the Chinese Soc. for Materials Science
193. H.C. Kao, M.H. Lo, W. Wei, 1993, "Microstructure of zirconia/mullite composite prepared by sol-gel method", pp.45-46 in Sec. 2, Proc. of the 1993 Annual Conf. of the Chinese Soc. for Materials Science
194. K.H. Won, W. Wei, 1993, "Processing and characterization of SiC and cordierite coatings on carbon/carbon composites", pp. IV-1-1 to 1-12, Aug. 1, 1993 CSIST Materials Technology Conference
195. W. Wei, 1993, "Mineralogical technology and nano-process", Nov. 20, in "Nano-composite and multi-layer material", NCKU, Tainan
196. B.C. Chyr, H.J. Kao, W. Wei, 1992, "The study of flexural strength and crack healing of alumina", Conf. of Fracture Mechanics, Taipei, Taiwan, March 1992
197. C.S. Shin, P.H. Hsu, W. Wei, 1992, "Fracture toughness testing of ceramic materials", Conf. of Fracture Mechanics, Taipei, Taiwan, March 1992
198. M.H. Luo, W.J. Wei, 1992, "Crystal growth of superconducting phase from YBaCuO glassy phase", pp.308-309, Proc. of the 1992 Annual Conf. of the Chinese Soc. for Materials Science
199. Y.F. Ho, W.J. Wei, 1992, "Reaction sintering of zirconia-mullite composites", pp. 470-471, Proc. of the 1992 Annual Conf. of the Chinese Soc. for Materials Science
200. T.M. Wu, W. Wei, S. E. Hsu, 1992, "Kinetics analysis on the oxidation behavior of coated carbon/carbon composite by TGA", pp. 484-485, Proc. of the 1992 Annual Conf. of the Chinese Soc. for Materials Science
201. M.H. Luo, W. J. Wei, 1992, "Microstructural analysis of the interface between  $YBa_2Cu_3O_{7-x}$  and Ag and Ag/Pd alloys", July 25-26, 1992, Proc. National Superconductivity, Chinese Phys. Soci., Tainan, Taiwan, ROC
202. C.F. Lin, W. J. Wei, S.L. Lo, T.T. Lin, H.W. Hwang, D.H. Hwang, 1992, "Leaching behaviors of copper oxide solidification/ stabilization using  $C_3A$  and  $C_3S$  fixing agents", Proc. 7th Conf. on Waste Management Technology in Republic of China, pp. 481-492, Nov. 21, 1992
203. 林宗曾,林正芳,韋文誠,駱尚廉,1992,"水泥固化/穩定化氧化銅之顯微結構研究",煉鋼及軋鋼廢棄物處理技術論文集,39-53頁,81年冶鍊公害防治技術研討會,民81年12月
204. W. Wei, 1991, "Interfacial stress analysis of single layer coated ceramic composite", p. 642, Proc. of the 1991 Annual Conf. of the Chinese Soc. for Materials Science
205. T.M. Wu, W. Wei, S.E. Hsu, 1991, "Processing of boron doped SiC for the anti-oxidation of graphite", p646, Proc. of the 1991 Annual Conf. of the Chinese Soc. for Materials Science
206. W.H. Lee, W. Wei, 1991, "Delamination of Ag-Doped  $YBa_2Cu_3O_{7-x}$  superconductor", p. 332, Proc. of the 1991 Annual Conf. of the Chinese Soc. for Materials Science

207. L.S. Chang, T.H. Chuang, W. Wei, T.T. Wu, 1991, "Ultrasonic testing of intrinsic defects in ceramics", p246, Proc. of the 1991 Annual Conf. of the Chinese Soc. for Materials Science
208. T.C. Lin, W. Wei, C.H. Koo, 1990, "A study of processing of reaction sintering of Si<sub>3</sub>N<sub>4</sub>/SiC whisker composites", pp. 903-907, Proc. of the 1990 Annual Conf. of the Chinese Soci. Mat. Sci.
209. C.S. Lee, C.H. Koo, W. Wei, 1990, "A study of the reaction sintering Si<sub>3</sub>N<sub>4</sub>-SiC whisker composites", pp. 895-898, Proc. of the 1990 Annual Conf. of the Chinese Soci. for Mat. Sci.
210. T.M. Wu, W. Wei, S.E. Hsu, 1990, "The study on the oxidation of SiC-coated carbon/carbon composite", pp. 957-959, Proc. of the 1990 Annual Conf. of the Chinese Soci. for Mat. Sci.

### (C) 報告及專書 (Report and Book)

1. 韋文誠, 2013, "固態燃料電池技術", 高立圖書, 第一版, 2013/4, 台北;"固體燃料電池技術", 第二版, 上海交通大學出版社。
2. 韋文誠, 2004, "飛機引擎的金縷衣-陶瓷纖維", 國科會, 科學發展月刊, 2004/3, 第375期, pp. 34-37
3. 溫宗翰, 韋文誠, 林慶章, 2003, "新型纖維加強陶瓷基複合材料之發展與應用", 陶業季刊, 第22卷第2期, pp. 52-59
4. 楊志忠、林頌恩及韋文誠, 2003, "燃料電池的發展現況", 國科會, 科學發展月刊, 第367期, pp. 30-33
5. 韋文誠, 2001, "第103屆美國陶瓷學會年會", 國科會, 科學發展月刊, 第29卷8期, pp. 616-618,
6. 韋文誠, 2001, "歷史之旅\_莫來石陶瓷國際會議及造訪莫來島", 陶業季刊, 第20卷第1期, pp. 42-45
7. 高鴻展、韋文誠, 2000, "氧化鋁陶瓷輪磨加工之表面分析", 磨粒會訊, 第21期, pp. 11-19
8. 韋文誠, 2000, "引擎陶瓷材料及組件國際會議", 科學發展月刊, 第28卷12期, pp. 968-970, 89年12月出版
9. 韋文誠, 2000, "精密射出成形氧化鋯套管製程研究", 經濟部所屬事業協助中小企業推動研究發展計畫全程計畫結案報告, 共107頁, 6/2000
10. 韋文誠, 2000, "陶瓷人工髋關節球頭的研製、測試與評估(3/3)"國科會專題計畫果結案報告, 共333頁, 4/30/2000
11. 韋文誠、鄭誠功、關永武, 1999 "人工髋關節球頭之發展與評估", 科學發展月刊, 27[9], 998-1007(1999)
12. 韋文誠, 1999, "鈦鋯酸鉛(PZT)壓電元件之低壓射出成形製程研發", 富源磁器委託研究計畫成果報告, 共110頁, 7/31/1999
13. 韋文誠, 1999, "第三屆國際耐火材料會議", 科學發展月刊, 27[4], 444-448,(1998)
14. 林哲信、程曜、許博淵、曾世昌、韋文誠, "X光深刻(LIGA)製造超細纖維紡口", 機械月刊, 第二十五卷第十一期, 1999年十一月, 288~292頁
15. 韋文誠, 1998 "國際耐火材料之新技術發展方向", 陶業季刊, 17[2], 1-8 (1998)
16. 韋文誠, 1998, "陶瓷人工髋關節球頭的研製、測試與評估(2/3)"國科會專題計畫果報告, 共160頁, 9/19/1998
17. 韋文誠, 1998, "精密耐磨氧化鋯線導關鍵元件之研發", 邦維企業委託研究計畫成果報告, 共108頁, 5/15/1998
18. 沈俊良, 姚仁寬, 韋文誠, 1997, "ICP化學成分之酸溶處理方法之比較及探討", 陶業季刊, 16[2], (1997)
19. 韋文誠, 1997, "陶瓷人工髋關節球頭的研製、測試與評估(1/3)"國科會專題計畫果報告, 共194頁, 6/28/1997
20. 沈俊良, 姚仁寬, 侯尚杰, 韋文誠, 1996, "陶瓷原料之ICP及AA光譜成分分析探討", 台灣手工業期刊
21. 韋文誠, 1996, "氧化鋯質耐火流嘴關鍵元件之射出成形製程研發", 臺灣水泥公司研究計畫報告, 85/11/30, 共124頁
22. 韋文誠等四人, 1996, "金屬及陶瓷粉末射出成形研究群第一期技術成果報告", 台大慶齡工業研究中心, 85/11/22, 共260頁
23. 韋文誠, 1996, "以射出成形技術製作高性能氧化鋁基材料子計畫三:陶瓷射出成形製程之壓

- 力與成形特性研究(I)"，NSC85-2216-E002-031, 85/10/18, 共231頁
- 24. 韋文誠, 1996, "碳化矽/鈦金屬複合材料之製程、界面分析及機械性質研究", NSC85-2216-E002-019, 85/10/1, 共57頁
  - 25. 韋文誠, 1996, "工程陶瓷", 化工技術, 第39期六月號
  - 26. 韋文誠, 1995, "碳化矽/金屬複合材料之製程-界面分析及機械性質研究", NSC83-0405-E002-022 & NSC84-2216-E002-006, 84/11/30, 共62頁
  - 27. 韋文誠, 1995, "利用非傳統射出成形法製作高強度氧化鋁-溶膠及凝膠製程", NSC84-2216-E002-034, 民國84年10月, 共127頁
  - 28. 韋文誠, 1994, "利用非傳統射出成形法製作高強度氧化鋁-溶膠及凝膠製程", NSC83-0405-E002-009, 民國83年8月, 共58頁
  - 29. 韋文誠, 1994, "ZTM及莫來石陶瓷擠出成形製程研究", 中鋼公司研究計畫報告, 民國83年8月, 共101頁
  - 30. 游步光, 韋文誠, 1993, "微細陶瓷複合粉體之膠體製程", 陶業季刊, 中華民國陶業研究學會, V 12, No.1, PP.5-16。
  - 31. 韋文誠, 1993, "精密陶瓷的可靠度工程", 機械月刊, 第212期, 192-199頁, 1993 三月號
  - 32. 韋文誠, 1993, "具層次孔隙之陶瓷濾網製程研究", 中鋼公司研究計畫報告, 民國82年3月, 共88頁。
  - 33. W.J. Wei, 1993, "The structure and characteristics of ceramic materials", Science Monthly, Vol. 24[7] (1993) pp. 508-516
  - 34. 韋文誠, 1993, "超微粒陶瓷粉末之濕式成形與燒結研究", NSC82-0405-E-002-119, 民國82年9月, 共82頁
  - 35. 韋文誠, 1993, "氧化鋯複合材料之顯微結構與機械性質研究(II)", NSC82-0405-E002-245, 民國82年9月, 共82頁
  - 36. 「陶業技術概論」, "From technology through machinery to kilns for SACMI tile-technological notes on the manufacture of ceramic tiles", 中華民國陶業學會出版, 199
  - 37. 段維新、韋文誠, 1992, "精密陶瓷四點彎曲試驗研究及國家標準修訂草案", 中標局計劃報告, 民國81年5月, 共135頁。
  - 38. 韋文誠, 1992, "多層鍍膜碳/石墨材料之製程及性質研究", 國防科技計劃報告, CS80-0210-D002-35, 民國81年7月, 共81頁。
  - 39. W. Yang and W. Wei, 1992, "Measurement and analysis of micro-indentation on ceramics", (in Chinese) Ceramics, the Chinese Ceramic Society, V11 [2], pp. 52-69
  - 40. Wei, 1992, report on "94th Am. Ceram. Soci. Annual Meeting", National Science Council Monthly, Vol. 20 [7], 1992, pp.880-83
  - 41. 韋文誠, 邊秉成, 1991, "結構陶瓷機械性質之特性與定量分析", 陶業季刊, 中華民國陶業研究學會, V 10, No.2, PP.4-18
  - 42. W.J. Wei, 1991, "Mechanical Properties of Structural Ceramics", Seminar, Jan. 28 (1991), National Taiwan University
  - 43. W.J. Wei, 1991, "Properties and mechanical analysis of high temperature ceramic composites", Workshop, May 22-25, (1991), National Taiwan University
  - 44. W. J. Wei, T.H. Chuang, W.H. Tuan, T.T. Wu, and C.S. Shin, 1991, "Mechanical property testing of Structural ceramics", supported by National Science Council, NSC 80-0405-E002-18, September 1991, 170 pages
  - 45. W. J. Wei, 1991, "Processing of porous ceramic filter", (in Chinese) supported by China Steel Co., contract # 79-S-23, July 1991, 94 pages
  - 46. W. J. Wei, 1991, "The study of phase reaction and transformation of high  $T_c$  Y-Ba-Cu-O superconductors with metals", supported by National Science Council in Taiwan, NSC 80-0405-E002-02, October 1991, 72 pages
  - 47. 韋文誠, 1990, "高熱傳氮化鋁製程之技術評估", 中鋼公司計劃報告, 民國79年元月, 共104頁。
  - 48. 韋文誠, 1990, "高強度多層鍍膜碳/石墨材料之製程與抗氧化性研究", 國防科技計劃報告, NSC79-0210-D002-06, 民國79年9月, 共91頁。
  - 49. 韋文誠, 1990, "超導體與包覆金屬界面特性研究", 國科會計劃報告, NSC79-0405-E002-01, 民國79年12月, 共79頁。
  - 50. 韋文誠, 1990, "美國先進陶瓷科技發展現況", 陶業季刊, V9 [1], 3-20。
  - 51. 李宇琦, 韋文誠, 1990, "高熱傳氮化鋁粉末合成及性質分析", 陶業季刊, V9, No.3,

PP.15-30。

52. 韋文誠, 1990, "工程結構陶瓷之特色與應用", 機械工程, 第178期, PP.24-32
53. 李長署, 韋文誠, 1990, "陶瓷切削刀具之發展", 機械工程, 第178期, PP.45-50
54. 羅名宏, 韋文誠, 1990, "汽車引擎的陶瓷材料", 機械工程, 第178期, PP.51-57
55. 韋文誠, 1989, " 陶瓷金相製作及顯微結構分析講習會 ", 7/31-8/4, 台大材料所
56. 韋文誠, 林財池, 1989, "氮化矽與氮化鋁陶瓷之研究發展", 陶業季刊, 中華民國陶業研究學會, V8 [4], 3-27
57. 韋文誠, 1988, " 結構陶瓷的生產製造研討會--從電子基板到陶瓷轉輪 ", 77-TC-03, 3/22-3/24, 台大慶齡工業研究中心。

## 六、專利(Patent)

### 12 件專利申請 (SOFC相關) in pending

1. 韋文誠, 2014, "應用於三維列印之高溫加熱及熔融擠出裝置", 中華民國專利, 新型第M486541 號, 2014/9/21-2024/5/29
2. 韋文誠、蔡居諭, 2014, "多孔陶瓷結構及其製造方法以及用以製造它的漿料", 中華民國專利, 發明第 422554, 2014/1/11-2030/6/8, 國立臺灣大學
3. 韋文誠、張智淵, 2013, " 固態氧化物燃料電池之連接器 ", 中華民國專利, 發明第409982 號, 2013/9/21-2030/4/19
4. W. C. Wei and S. E. Lin, 2012, "Mono-dispersive spherical indium oxide-based particles and method for producing the same, US patent 8236278 B2, 8/7/2012-1/28/2028
5. 韋文誠, 翁銘璁, 黃啟原, 2007, " 氧化鋁基複合陶瓷之塑性胚料及其燒結體 ", 中華民國專利, 發明第 363048 號, 2012/5/1 -2027/12/10
6. W. C. Wei, J. M. Sung, S.E. Lin, J. Y. Yu, "Cerium-based oxide fiber and its fabricating method," US patent 7,612,005 B2, Nov.3, 2009  
韋文誠, 宋佳明, 林頌恩, 游哲彥, " 一種氧化鈮長纖及其製程方法 ", 中華民國發明第312766號, 2009/8/1-2026/2/6
7. K.C. Hsu, C. H. Chen, Y. P. Tsai, and W. C. Wei, 2009/8, "Method of preparing a copolymer and using such as a dispersing agent for titanate-based ceramic colloids," US patent 7,572,836, Aug. 11, 2009
8. K. C. Hsu, L. P. Chen, D. S. Hwung, K. L. Ying, W. C. Wei and S. F. Wang, "Methods for processing ceramic powder suspension," US Patent US 7,517,915, 2009/4
9. K. C. Hsu, L. P. Chen, D. S. Hwung, K. L. Ying, W. C. Wei and S. F. Wang, Methods for processing ceramic powder suspension, US Patent US 7,495,032, 2009/2.
10. 許貫中、陳志豪、蔡雨萍、韋文誠, 2008, 共聚物之製備以及其作為鈦酸基陶瓷粉末漿體分散劑, 中華民國專利, 發明第 297341 號, (2008/6/1-2025/9/12), 台師大
11. 韋文誠, 楊忠忠, 2005, 可撓曲之多孔鎳-氧化鈦安定化氧化鋯陽極電極薄層之製法, 中華民國專利, 發明第 243216 號, (2005/11-2023/3), 國科會
12. 許貫中, 陳龍賓, 應國良, 韋文誠, 王錫福, 2003, "製備陶瓷粉末懸浮液的方法", 中華民國專利, 發明第 191427 號 (2003/11/21-2023/2/24)
13. W. C. J. Wei, S. J. Cheng, C. L. Hsieh, H. C. Kao, "Process for producing alumina material for artificial skeleton with high strength," US patent 6,123,912, 2000/9/26-2019/1/19  
韋文誠、鄭水金、謝長利、高鴻展, 2001, "高強度氧化鋁材料之製程 ", 中華民國專利, 發明第 146504 號, (2001/12/1-2018/5/5), 國科會
14. 韋文誠、何方元, 2001, "氧化鋯懸浮液及高密度燒結體之製法 ", 中華民國發明第135402號, 2001/6-2018/9, 國科會
15. 韋文誠、王聖璋、李建樹、沈國宏, 2001, "提供複合鎳鍍層之鎳電鍍液", 中華民國專利, 133936號, 2001/9-2018/8, 華宏新技
16. 韋文誠、吳榮源, "粉末射出成形之氧化鋯胚料及其混煉製程", 中華民國發明專利公告編號455519號, 2001/9/24公告, 中油公司及宗維公司
17. 韋文誠、王博祺、郭宗恕、卓慧如、遲秉誠, "材料環對盤往復磨耗試驗機", 中華民國專利公告編號458274號, 2001/10/1公告, 中油公司及宗維公司

18. 童文誠、林育平、黃章惇、楊焜池，2000 “氧化鋯質耐火流嘴之製法”，中華民國發明專利 112675號( 民國89年3月21日- 民國106年6月29日 )，台泥； 中華人民共和國發明專利,第125671 號(2/2000起20年)
19. W. J. Wei , M. H. Lo and F. H. Cheng, 1998, “Process for preparing molybdenum, molybdenum silicides or carbides/ ceramic admixtures and sintered composites,” US patent No. 5,795,837, Aug. 18, 1998  
童文誠、羅名宏、鄭逢輝，1999，“含鉬或含鉬界金屬化合物之陶瓷複合粉體及陶瓷複合材料之製造方法”，中華民國發明專利107695號（民國88年9月21日-民國105年7月4日）
20. 鄭成功、龍震宇、童文誠，1999, ”人工髋關節模擬器”，中華民國新型150569號（民國88年8月1日-民國99年8月27日）
21. C. Chen, W. Wei, K. J. Chang, 1996, "Laser Remelting Process for Plasma-Sprayed Zirconia Coating," US patent 5,576,069, Nov. 19, 1996 and  
陳均、童文誠、張凱傑，1994, "電漿噴塗氧化鋯塗層之雷射二次重熔處理"，中華民國專利發明第68773號，民國83年10月21日
22. W. Wei and S. J. Lu, 1996, "Aqueous Colloidal Dispersion of Sub-Micrometer Alumina Particles," US patent 5,518,660, May 21, 1996 and  
童文誠、盧素珍，1995, "次微米氧化鋁粉末之水膠態分散液"，中華民國專利發明第 071279 號，民國84年5月1日-民103年2月14日
23. 童文誠、李宇琦，1993,"多孔陶瓷過濾網體及其製造方法" ，中國鋼鐵，中華民國專利發明第 62584，民國82年6月21日
24. W. Wei and B. Novich, 1990, "Method for preparing dense, pressureless sintered SiC whisker reinforced composite ceramics", Ceramics Process Systems Co., US patent 4,946,808, April 7, 1990
25. R.W. Adams and W. Wei, 1989, "Refractory ceramics for contact with molten metal", Ceramics Process Systems Co., Inter-national Publication No. WO89/10918, Nov. 16, 1989, and US patent 4,888,313, Dec. 19, 1989

## G. 論文(Thesis)

1. W. Wei, 1984, "Structures, properties and processing of silica gels", Master Thesis, Dept. of Metallurgy and Materials Science, Case Western Reserve University, Cleveland, OH, USA, Sep. 1984
2. W. Wei, 1986, "The phase transformation, transformation kinetics, microstructure, and sintering of aluminum silicate gels," Ph.D. Dissertation, Metallurgy and Material Science Dept., Case Western Reserve University, August 1986

## 技術轉移

目前尚無

## 著作授權

韋文誠，“陶瓷電子顯微鏡實驗”，教育部顧問室，85/6/30，85-材料-教材-001

## 其他協助產業技術發展之具體績效

1. 協助國內傳統陶瓷界進行「陶瓷原料之成分分析」
2. 建立「人工陶瓷髓關節球頭(ceramic femoral head)」製造及分析技術
3. 開發「納米級超微粉水基分散液」之製程及相關應用