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最高學歷：國立清華大學化學工程博士

研究領域：高分子複合材料、綠色循環材料、奈米材料、能源材料

學術榮譽:

1. 2016/10/26~迄今 澳大利亞南澳大學兼任副教授(Adjunct Associate Professor of University of South Australia)
2. 2015 年 Kaohsiung International Invention & Design EXPO(Taiwan) 國際裁判。
3. 2013 年 ITEX Invention Exhibition(Malaysia)國際裁判。
4. 2013 年 INOVA Invention Exhibition(Croatia) 國際裁判。

獲獎

1. 指導學生團隊參與 2015 年科技部 FITI 競賽(第一梯次)榮獲創業潛力獎。
2. 指導學生團隊參與 2014 年第八屆龍騰微笑競賽榮獲佳作。
3. 指導學生團隊參與 2009 年第四屆龍騰微笑競賽榮獲佳作。
4. 指導學生團隊參與 2008 年第三屆龍騰微笑競賽榮獲首獎。
5. 榮獲(2021) Kaohsiung International Invention & Design EXPO(Taiwan)銀獎。
6. 榮獲(2020) Seoul Invention Exhibition(Korea)銅獎。
7. 榮獲(2019) Kaohsiung International Invention & Design EXPO(Taiwan)銅獎。
8. 榮獲(2019) ITEX Invention Exhibition(Malaysia)銅獎。
9. 榮獲(2019) Bangkok International IP Invention Innovation Exposition(Tailand)銅獎。
10. 榮獲(2018) Kaohsiung International Invention & Design EXPO(Taiwan)銀獎。
11. 榮獲(2018) Seoul Invention Exhibition(Korea)金獎。
12. 榮獲(2018)Taiwan Innotech Expo 金獎 2 面。

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24. 榮獲(2012)Pittsburgh Invention Exhibition(USA) 金獎,銀獎。
25. 榮獲(2011) INOVA Invention Exhibition(Croatia) 銀獎。
26. 榮獲(2011)Taipei Invention Exhibition(Taiwan) 銅獎。
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36. 榮獲(2008)Geneva Invention Exhibition(Switzerland) 銅獎。
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39. 榮獲(2007)London Invention Exhibition(England) 金獎。
40. 榮獲(2007)Pittsburgh Invention Exhibition(USA) 銀獎, 銅獎 2 面,優秀金牌。
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專利

1. 中華民國發明專利 I752391 「利用奈米石墨片製備熱固性複合材料之方法」(2022)
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5. 中華民國發明專利 I716226 「利用超臨界流體製備石墨烯片之方法」(2021)
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10. 中華民國發明專利 I664075 「添加木質、植物纖維之積層列印材料」(2019)
11. 中華民國發明專利 I663046 「添加陶瓷粉末之積層列印材料」(2019)
12. 中華民國發明專利 I655914 「迴轉輸料式積層製造設備及其列印頭」(2019)
13. 中華民國發明專利 I656012 「添加金屬粉末之積層列印材料」(2019)
14. 中華民國發明專利 I656157 「塑木基材及其製造方法」(2019)
15. 中華民國發明專利 I655941 「副木及其製作方法」(2019)
16. 中華民國發明專利 I640472 「利用超音波製備石墨烯奈米片之方法」(2018)
17. 中華民國新型專利 M561131 「石墨烯奈米片風電葉片方法」(2018)
18. 中華民國新型專利 M559868 「石墨烯奈米片液化石油氣壓力容器」(2018)
19. 中華民國新型專利 M559366 「礦坑塑膠幫浦」(2018)

20. 中華民國發明專利 I574818 「控制添加植物性纖維之塑料在射出成型時表面平滑之方法」(2017)
21. 中華民國發明專利 I527683 「複合材料容器之製造方法」(2017)
22. 中華民國發明專利 I515052 「含液晶玻璃粉之木塑複合材製備方法」(2016)
23. 中華民國發明專利 I473849 「具遠紅外線效果之塑木複材及其製造方法」(2015)
24. 中華民國發明專利 I474916 「模頭流道之製造方法」(2015)
25. 中華民國發明專利 I458571 「一種以回收利樂包再生複合板材之方法」(2014)
26. 中華民國發明專利 I430943 「用於製備石墨奈米片之方法」(2014)
27. 中華民國發明專利 I430942 「用於製備膨脹型石墨之方法」(2014)
28. 中華民國發明專利 I431106 「高燃燒效率植物燃料之製程」(2014)
29. 中華民國發明專利 I417240 「膨脹型石墨之製法」(2013)
30. 中華民國發明專利 I409300 「生質塑木複合材、產品及其製造方法」(2013)
31. 中華民國發明專利 I398472 「高分子複合材料及其製造方法」(2013)
32. 中華民國發明專利 I385203 「經含雙鍵之矽氧烷改質劑改質之膨脹型石墨及其製法」(2013)
33. 中華民國新型專利 M445177 「拉伸流變儀之荷重加壓裝置」(2013)
34. 中華民國發明專利 I380493 「鉛酸電池輕量化的方法」(2012)
35. 中華民國新型專利 M434958 「可控透光之導光條結置」(2012)
36. 中華民國新型專利 M431271 「LED 燈管結構」(2012)
37. 中華民國發明專利 I363780 「具有水交聯反應性質之生物分解性高分子複合材料及其製造方法」(2012)
38. 中華民國發明專利 I361135 「利用平膜方式押出收縮膜之製程方法」(2012)
39. 中華民國新型專利 M421226 「發泡裝置之界面模結構置」(2012)
40. 中華民國新型專利 M421228 「自動定量給料裝置」(2012)
41. 中華民國發明專利 I354685 「具有生物分解性之奈米複合材料及其製備方法」(2011)
42. 中華民國發明專利 I353997 「含碳奈米管之生物分解性高分子複合材料及其製備方法」(2011)
43. 中華民國發明專利 I352114 「含有經改質之膨脹型石墨／熱固性高分子之複合材料的難燃組成物」(2011)
44. 中華民國發明專利 I352113 「含有經改質之膨脹型石墨／熱塑性高分子之複合材料的難燃組成物」(2011)
45. 中華民國發明專利 I352104 「經矽氧烷改質劑改質之膨脹型石墨及其製法」(2011)
46. 中華民國發明專利 I352096 「經改質之膨脹型石墨／經改質之熱固性高分子之複合材料」(2011)
47. 中華民國發明專利 I352095 「經改質之膨脹型石墨／經改質之熱塑性高分子之複合材料」(2011)
48. 中華民國發明專利 I327956 「利用吹膜方式押出收縮膜之製程方法」(2010)

研究計畫

1. 2022/02/01-2022/07/31 「永續複合材料開發計畫」產學案主持人
2. 2021/11/01-2022/10/31 「高功能性複材開發-委託試驗II」產學案主持人
3. 2021/06/01-2022/05/31 「日本廢杉木皮再製防火木屑板及塑木板之研究」科技部計畫主持人(MOST 110-2622-E-269-003)
4. 2021/01/20-2021/05/31 「具生分解性之甘蔗纖維/生質無塑合膠複材配方開發暨量產製程規劃」產學案主持人
5. 2020/10/01-2021/05/31 「生質材料回收技術研究及其機械物性檢測」產學案主持人
6. 2020/06/01-2021/11/30 「奈米石墨片開發及其複材研究(I,II,III,IV)」產學案主持人
7. 2019/03/16~2019/11/30 「以單壁奈米碳管製作防電磁波複合材料及其紡織品之開發計畫」科技部計畫主持人(MOST 108-2622-8-269-001)
8. 2018/11/01~2019/10/31 「無硫低溫可膨脹奈米石墨片量產製程及其於PET纖維之應用」科技部計畫主持人(MOST107-2622-E-269-009-CC3)
9. 2018/06/01-2018/12/31 「防火板材開發評估計畫」產學案主持人
10. 2018/01/01~2018/10/31 「MDF及多層共押百葉窗框押出製程開發暨整廠輸出分項計畫」產學案主持人
11. 2017/06/01~2018/05/31 「循環複料應用於次世代熔融積層綠色製程及其高值化產品開發(1/3)」科技部計畫主持人(MOST_106-3114-E-269-001)
12. 2016/11/01~2017/10/31 「應用石墨烯製備抗靜電無鹵防火高性能複合材料及其在塑膠幫浦用之應用」科技部計畫主持人(MOST 105-2622-E-269-020-CC3)
13. 2015/04/01~2016/06/30 「塑膠幫浦用玻纖強化尼龍複合材料開發計畫」產學案主持人
14. 2014/04/01~2014/12/31 「3D列印用尼龍線材之配方暨抽線製程建立計畫」產學案主持人
15. 2013/12/01~2014/12/31 「3D列印用具生分解性線材之合膠配方暨抽線製程規劃與模具設計技術開發」產學案主持人
16. 2013/08/01~2014/04/30 「導熱塑膠成型加工技術」產學案主持人
17. 2013/07/01~2014/04/30 「車廂訊號連結環保線纜披覆材轉委託研究計畫」產學案主持人
18. 2013/06/01~2013/12/31 「PP複合綠材先期研究評估計畫」產學案主持人
19. 2013/03/18~2013/11/30 「功能性透明塑膠膜材開發」產學案主持人
20. 2012/12/01~2013/10/31 「TPE無鹵阻燃材料混練暨成型技術轉委託研究計畫」產學案主持人
21. 2012/06/01~2012/09/30 「石墨烯製備新型導電熱塑性複材及其於電雙極板的應用開發」產學案主持人
22. 2012/06/01~2012/09/30 「尼龍複材配方製程先期研究」產學案主持人

23. 2012/05/01~2012/08/31 「PP 複材配方製程技術先期研究」產學案主持人
24. 2011/05/01~2011/08/31 「高導熱性聚苯硫醚複合材料開發及其在 LED 散熱燈殼的應用評估」產學案主持人
25. 2011/07/08~2012/04/30 「高性能橡膠配方暨製程技術轉委託研究計畫」產學案主持人
26. 2010/09/01~2011/08/31 「CL-08 導電塑膠/橡膠委託加工配方調整與性質測試」產學案主持人
27. 2010/07/03~2011/04/30 「阻燃 PC/PET 導熱複材配方及混練製程轉委託研究計畫」產學案主持人
28. 2010/05/01~2011/04/30 「LED 燈罩用之 PPS 導熱複材暨合成耐衝擊 PMMA 技術先期研究」產學案主持人
29. 2010/04/01~2010/09/30 「淋膜發泡杯改善專案計畫」產學案主持人
30. 2009/11/01~2011/02/28 「導熱粉體表面改質技術暨環氧樹脂增韌技術轉委託研究計畫」產學案主持人
31. 2009/11/01~2010/04/30 「高導電複材母粒開發」產學案主持人
32. 2009/08/01~2010/07/31 「以高分子相容劑包覆之奈米碳管製備熱塑性高分子複合材料及其性質研究」國科會計畫主持人(NSC 98-2221-E-269-001-)
33. 2009/03/20~2009/08/19 「高強度 3C 電子產品透明殼材開發」產學案主持人
34. 2009/03/07~2010/01/31 「符合 TUV 法規高耐候高耐燃之太陽能線纜開發計畫」產學案主持人
35. 2009/03/01~2009/08/01 「導電性超韌尼龍複合材料開發」產學案主持人
36. 2009/01/01~2009/12/31 「高性能奈米碳管強化聚苯硫醚複合材料開發」教育部產學案主持人
37. 2008/08/01~2009/07/31 「二氧化碳超臨界氣體輔助奈米碳管官能基化暨其高分子複合材料性質之研究」國科會計畫主持人(NSC 97-2218-E-269-001-)
38. 2008/7/1~2008/12/31 「高濃度抗靜電劑母粒製備先期評估研究」產學案主持人
39. 2008/6/1~2009/1/31 「高導熱性塊狀模造材料(BMC)之開發及其在高散熱元件上的應用」教育部產學案主持人
40. 2008/04/01~2008/12/31 「提高 PET 回收品物性之技術開發」產學案主持人
41. 2008/3/1~2008/11/30 「配方、加工成型、製程技術開發計畫」產學案主持人
42. 2007/12/1~2008/10/3 「FRP 回收材/聚烯烴複合材料開發」教育部產學案主持人
43. 2007/12/1~2008/5/30 「導熱粉體表面改質技術暨溶膠-凝膠合成技術轉委託研究計畫」產學案主持人
44. 2007/7/1~2007/12/31 「環保 LSNH 及 EPR 開發」產學案主持人

45. 2007/6/1~2007/11/30 「EMC 材料配方開發」產學案主持人
46. 2007/5/25~2007/8/23 「半導體 PE 材料開發」產學案主持人
47. 2007/3/15~2008/2/29 「OPET 及 OPS 收縮膜製程加工技術開發計畫」產學案主持人

服務

1. 2015/06 月~迄今, 經濟部工業局 審查委員
2. 2019~2022 台灣精密機械與模具策略聯盟 理事
3. 2016~2019 中華民國強化塑膠協進會 理事
4. 2012,2015,2018,2019 年度台南市政府經濟發展局中小企業服務團 顧問