

國立東華大學教師個人基本資料表

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最高學歷/起迄：Ph.D. University of Oregon, USA

現職/起迄：Professor, Department of Physics

到任年月份(東華)：08, 1998

專長 1. Nanobiotechnology 2. Spectroscopy
 3. Biophysics 4.

鄭嘉良

Chia-Liang Cheng



■研究 (2012.8.1~2017.7.31)

- 注意事項：(一) 請詳列五年內(此段期間曾懷孕及生產者,得延長至七年內(2003.8~2010.7))發表之學術性著作,包括:期刊論文、專書及專書論文、研討會論文、技術報告及其他等,並請依各類著作之重要性自行排列先後順序。
- (二) 各類著作請按發表時間先後順序填寫。各項著作請務必依作者姓名(按原出版之次序,通訊作者請加註*)、出版年、月份、題目、期刊名稱(專書出版社)、起迄頁數之順序填寫。
- (三) 若期刊屬於SCI、EI、SSCI或A&HCI等時,請註明。

一、期刊論文：

SCI Journal Papers: C. - L. Cheng (2012.8.1~2017.7.31) * Corresponding author (05-10-2017 updated)

1. Yu-Chung Lin, Zhe-Rui Lin, Lin-Wei Tsai, Elena Perevedentseva, Artashes Karmenyan, Chia-Liang Cheng*, Fluorescence analysis of nanodiamond-berberine complex interaction with living cells for nanoparticle mediated drug delivery ", **J Biomedical Photonics and Engineering**, (Apr. 2017, accepted). **IF=N/A (New journal)**
2. K. - J. Huang^a, C.-Y. Lee^b, S.-F. Hung^a, C.-Y. Lin^a, E. Perevedentseva^b, C. - L. Cheng^{b,*}, Phagocytosis and immune response studies: Macrophage-Nanodiamonds Interactions *in vitro and in vivo*, **J. Biophotonics**, doi:10.1002/jbio.201600202 (Jan 2017). **IF=3.818 (光電 11.11%)**
3. Ashek-I-Ahmed, Soumen Mandal, Laia Gines, Oliver A. Williams, and Chia-Liang Cheng*, Low temperature catalytic reactivity of nanodiamond in molecular hydrogen, **Carbon** 110, 438-442. (2016). **IF=6.198, (化學 9.46%)**
4. Lin-Wei Tsai, Yu-Chung Lin, Elena Perevedentseva, Andrei Lugovtsov, Alexander Priezzhev and Chia-Liang Cheng, *, Nanodiamond for medical applications: interaction with blood *in vitro and in vivo*, **International J. of Molecular Sciences**, 17, 7, 1111(July 2016). **IF=3.257 :2 (物理 17.14%)**
5. Po-Hsun Shih, Chia-Liang Cheng, Yuan-Ron Ma, and Sheng Yun Wu*, Short range correlation length study in a single ZnO nanowire and its impact on phonon confinement, **Appl. Phys. Lett.** 108, 113101 (March, 2016). **IF=3.142 (物理 18.16%)**
6. Y.-C. Lin¹, K.-T. Wu¹, Z.-R. Lin¹, E. Perevedentseva^{1,2}, A. Karmenyan¹, M.-D. Lin³, C.-L. Cheng^{1*}, Nanodiamond for Bio labeling and Toxicity Evaluation in the Zebrafish Embryo *in vivo*, **J. of Biophotonics**, Aug;9(8):827-36 (2016) **IF=3.818 (光電 11.11%) :1**
7. Mukta Limaye, S. C. Chen, Chao-Yung Lee, L. Y. Chen, Shashi B. Singh, Y.-C. Shao, Y.-F. Wang, S. H. Hsieh, H. C. Hsueh, J. W. Chiou, Chia-Hao Chen, L. Y. Jang, Chia-Liang Cheng, W F Pong, Understanding of sub-band gap absorption of femtosecond-laser sulfur hyperdoped silicon using

- synchrotron-based techniques, **Scientific Reports**, Nature Publishing, 5:11466 (June 2015). **IF=5.228** (物理 8.44%) : 2
8. Meng-Si Wu, Der-Shan Sun, Yu-Chung Lin, Chia-Liang Cheng, Shih-Che Hung, Po-Kong Chen, Jen-Hung Yang and Hsin-Hou Chang*, Nanodiamonds protect skin from ultraviolet B-induced damage in mice, **Journal of Nanobiotechnology**, (May, 2015). **IF=4.239** (物理 12.53%) : 11
 9. L. Minati^a, C.L. Cheng^b, Y.C. Lin^b, J. Hees^c, G. Lewes-Malandrakis^c, C.E. Nebel^c, F. Benetti^d, C. Migliaresi^d, G. Speranza, Synthesis of novel nanodiamonds–gold core shell nanoparticles, **Dia. Relat. Mater.** 53, 23-28 (Mar. 2015). **IF=2.125**
 10. Yu-Chung Lin,^a Elena Perevedentseva,^{a, b} Chia-Liang Cheng^{a, *}, Raman Spectroscopic Study on the Excystation Process in a Single Unicellular Organism Amoeba (Acanthamoeba polyphaga), **J. Biomedical Optics**, 20(5) 051042 (May, 2015). **IF=2.556**,
 11. A. Chatterjee, E. Perevedentseva, C.-Y. Cheng, Y.- S. Ye, C.- L. Cheng^{*}, Antibacterial effect of ultrafine nanodiamond against gram negative bacteria *Escherichia coli*, **J. Biomedical Optics** 20(5), 051014 (May, 2015). **IF=2.556**
 12. Gaikwad, SS (Gaikwad, Shrikrushna Shivaji); Gandhi, AC (Gandhi, Ashish Chhaganlal); Pandit, SD (Pandit, Swarada D.); Pant, J (Pant, Jayashree); Chan, TS (Chan, Ting-Shan); Cheng CL (Cheng, Chia-Liang); Ma, YR (Ma, Yuan-Ron); Wu, SY (Wu, Sheng Yun)^{*}, Oxygen induced strained ZnO nanoparticles: an investigation of Raman scattering and visible photoluminescence, **Journal of Materials Chemistry C**, V2, 35, 7264-7274 (Sept 2014). **IF=5.066** (物理 10.23%)
 13. S Ashish Chhaganlal Gandhi, Jayashree Pant, Swarada D. Pandit, Sunanda K. Dalimbkar, Ting-Shan Chan, Chia-Ling Cheng, Yuan-Ron Ma, and Sheng Yun Wu, Short-Range Magnon Excitation in NiO Nanoparticles, **J. Phys. Chem. C**, 2013, 117 (36), pp 18666–18674 (2013) **IF=4.509** : 21 (化學 14.66%)
 14. Shih, PH (Shih, Po-Hsun); Cheng CL (Cheng, Chia-Liang); Wu, SY (Wu, Sheng Yun), Short-range spin-phonon coupling in in-plane CuO nanowires: a low-temperature Raman investigation, **Nanoscale Research Letters**, 8, 398 (Sep. 2013) **IF=2.584** : 2
 15. E. Perevedentseva, Y.-C. Lin, Mona Jani, C. - L. Cheng^{*}, Biomedical Applications of Nanodiamond in Imaging and Therapy, **Nanomedicine**, V. 8, No. 12, 2041-2060 (invited review, Dec 2013). **IF=4.889**. (物理 10.74%) : 30
 16. Mona Vishnudutt Jani, C.-J. Kuo; Elena Perevedentseva; A. V. Priezhev; Chia-Liang Cheng^{*}, Adsorption of Human Blood Plasma on Nanodiamond and its influence on Activated Partial Thromboplastin Time, **Dia. Relat. Mater.** 39, 73-77 (Oct. 2013) **IF=2.125** : 14
 17. E. Perevedentseva^{1, 2}, I.-T. Chiang¹, S.-F. Hong³, Y.-T. Tseng³, C.-Y. Lee¹, K.-J. Huang³, C.-L.Cheng^{1*}, Nanodiamond internalization in cells and the cell uptake mechanism, **Journal of Nanoparticle Research** 15:1834 (July 2013) **IF=2.184**
 18. J. Mona^a, E. Perevedentseva^{a, b}, H. -M. Liou^a, T. -Y. Kang^a, A. Karmenyan^c, C. -L. Cheng^{a, *}, Tailoring of surface and luminescence properties of nanodiamonds using rapid oxidative treatment, **J. Appl. Phys.** 113, 114907 (Mar. 2013); doi: 10.1063/1.4795605 **IF=2.02** : 4
 19. Tristan Petit,^{*} Jean-Charles Arnault, Hugues A. Girard, Mohamed Sennour, Tsai-Yang Kang, Chia-Liang Cheng, Philippe Bergonzo, Oxygen hole doping of nanodiamond[†], **Nanoscale** 4, 21, 6792-6799 (Nov. 2012) **IF=7.76** (材料 5.49%)
 20. Samsonova, YS (Samsonova, Yu. S.)¹; Priezhev, AV (Priezhev, A. V.)^{2,1}; Lugovtsov, AE (Lugovtsov, A. E.)²; Petrova, GP (Petrova, G. P.)¹; Gibizova, VV (Gibizova, V. V.)¹; Ye, YS (Ye, Y. -S.)³; Su, TH (Su, T. -H.)³; Perevedentseva, EV (Perevedentseva, E. V.)^{3,4}; Cheng CL (Cheng, Chia-Liang)³, Investigation of interaction of albumin molecules with diamond nanoparticles in aqueous solutions by dynamic light scattering, **QUANTUM ELECTRONICS** Volume: 42 Issue: 6 Pages: 484-488 (2012)
 21. Y.-C. Lin,¹ E. Perevedentseva,^{1, 2} L.-W. Tsai,¹ K.-T. Wu,¹ C.- L. Cheng^{1, *}, Nanodiamond for intracellular imaging in the microorganisms *in vivo*, **J. of Biophotonics** 5, No. 11–12, 838–847 (Nov. 2012) IF=4.447 (cited: 2) **IF=3.818** (光電 11.11%) : 20

22. Y.-C. Lin¹, L.-W. Tsai¹, E. Perevedentseva^{1,2}, H.-H. Chang³, C.-H. Lin³, D.-S. Sun³, A. Lugovtsov⁴, A. Priezzhev⁴, M. Jani¹, and C.-L. Cheng^{1*}, The influence of nanodiamond on the oxygenation states and micro rheological properties of human Red blood cells *in vitro*, **Journal Biomedical Optics** 17(10), 101512 (Oct. 2012) **IF=2.556 : 17**

二、專書及專書論文：

Book Chapter:

1. J. Mona, E. Perevedentseva, and C.-L. Cheng*, Biophysical Interaction of Nanodiamond with Biological Entities *In Vivo*, O. Williams (Ed.), RSC Nanoscience & Nanotechnology No. 31, The Royal Society of Chemistry (2014).

Patent:

2. 趙瑞益、陳清漂、鄭嘉良，包含奈米鑽石載體、藥物及其製備的方法和用途，中華明國 I-414309 號專利，2013/11/11~2029/7/12 (Nov 12, 2013)
3. J. I Chao, Chinpiao Chen, Chia-Liang Cheng, Carrier Comprising Nanodiamond, Method for preparing the same and use thereof, USA pattern (No. 12/574,958, pending 2017)

三、研討會論文：

International Conference:

1. Ashek-I-Ahmed¹, S. Mandal², Laia Gines², Oliver A. Williams², Chia-Liang Cheng^{1*}, On low temperature catalytic activity of nanodiamond particles, Hasselt Diamond Workshop 2017 SBDDXXII, Mar 07-11, 2014, Hasselt, Belgium, **(Invited talk)**.
2. Chia-Liang Cheng*, Raman Spectroscopy in bio and medical applications, 14th Annual meeting of Japan Association of Medical Spectroscopy, Awaji Island, 4-7 Dec 2016, Japan **(Keynote)**
3. Z.-R. Lin, Y.-C. Lin, L.-A. Wang, Kuan-Ting Wu, E. Perevedentseva, C.-L. Cheng*, Drug loading and efficiency of nanodiamond-anticancer drug complexes and the effect of autophagy modulation on drug delivery in cancer treatment, 2016 MRS Fall Meeting, Symposium R, 11/27-12/02, 2016, Boston MA USA. (Oral)
4. Yu-Chung Lin, Chang-You Song, Chia-Liang Cheng*, Raman Spectroscopic signature of life states in biological systems, the 24th annual International Conference on Advanced Laser Technologies (ALT-2016), 12-16 September 2016, Galway, Ireland. **(Invited talk)**.
5. Ashek-I-Ahmed¹, S. Mandal², Oliver A. Williams², Chia-Liang Cheng^{1*}, C₃-induced Nanodiamond hydrogenation using molecular hydrogen at low temperature, International Conference on Diamond and Carbon Materials, 4-8 September, 2016 Montpellier France (Oral)
6. Chia-Liang Cheng, Nanodiamond for Bio Imaging and Drug Delivery, 2nd International Conference on Current Trends in Cancer Theranostics, June 19-23, 2016, Druskininkai, Lithuania. **(Keynote)**.
7. Y.-C. Lin¹, L.-W. Tsai¹, E. Perevedentseva^{1,2}, C.-L. Cheng¹, Nanodiamond Color Centers for Bio-imaging, The 10th International Conference on New Diamond and Nano Carbons, May 22-26, 2016, Xian, China. **(Invited talk)**
8. Y.-C. Lin¹, K.-T. Wu¹, Z.-R. Lin², E. Perevedentseva^{1,3}, M.-D. Lin⁴, and C.-L. Cheng¹, Nanodiamond for Bio labeling and Toxicity Evaluation in the Zebrafish Embryo *in vivo*, 2015 MRS Fall Meeting, Symposium R, 11/30-12/5, 2015, Boston MA USA. **(Invited talk)**.
9. Y.-C. Lin¹, K.-T. Wu¹, Z.-R. Lin², E. Perevedentseva^{1,3}, M.-D. Lin⁴ and C.-L. Cheng^{1*}, Nanodiamond for Theranostic Applications: Toxicity Evaluation and Models in Small Animal and Microorganisms, the V International Symposium: Topical Problems of Biophotonic-2015; Nizhny Novgorod, Russia, 20-24 July, 2015. **(Invited talk)**.
10. Chia-Liang Cheng*, Nanodiamond for Bio Imaging and Drug Delivery, ICB-PHARMA SYMPOSIUM, UMS, Solo Indonesia, 01-10-2015, **(Invited talk)**.

11. C.-J. Kuo¹, R. Sulake², Y.-C. Lin¹, N. Kang¹, K. T. Wu¹, E. Perevedentseva¹, Chia-Liang Cheng^{1*}, Analysis on drug loading and efficiency of nanodiamond-cancer drug complexes for application in drug delivery, 2014 MRS Fall Meeting, Symposium R, 12/1-5, 2014, Boston MA USA. (Oral)
12. E. Perevedentseva, A. Karmenyan, Y.C. Lin, K.T. Wu, Ashek-I-Ahmed, N.N. Melnik, C.L. Cheng, Nanodiamond optical-spectroscopic properties and their optimization for development of theranostic applications. International Conference "Advanced Laser Technologies" ALT14, 6-10 Oct. 2014, Cassis, France, p.81 (**Invited talk**)
13. A.V. Priezzhev*, A.E. Lugovtsov, V.B. Koshelev, O.E. Fadyakova, C.L. Cheng, Y.C. Lin, E.V. Perevedentseva, Impact of Nanodiamonds on Red Blood Cells Studied by Laser Techniques. International Conference "Advanced Laser Technologies" ALT14, 6-10 Oct. 2014, Cassis, France, p.135 (**Invited talk**).
14. Chia-Liang Cheng*, Recent Developments on Nanodiamond for Bio/medical applications, Saratov Fall Meeting 2014, Saratov (Russia) 22-26 September 2014, (**Plenary talk**).
15. Y.-C. Lin, L.-W. Tsai, Elena Perevedentseva, Chia-Liang Cheng*, Raman Spectroscopic Signature of Life Cycle in Single Unicellular Organism (AMOEBAs), 24rd International Conference on Raman Spectroscopy (2014 ICORS), August 10-15, 2014 Jena, Germany. (**Invited talk**).
16. Yu-Chung Lin, Lin-Wei Tsai, Elena Perevedentseva, Alexander Priezzhev, Andrey Lugovtsov, Olga Fadukova, Vladimir Koshelev, Chia-Liang Cheng*, A biocompatible bio-label and drug delivery platform using nanodiamond, International Conference on Laser Application in Life Science, 06-29~07-02, 2014 Ulm, Germany. (**Invited talk**).
17. A. Priezzhev, A. Lugovtsov, S. Nikitin, K. Lee, V. Ustinov, V. Koshelev, O. Fadukova, M. Lin, A. Fedianin, M. Khokhlova, E. Liubin, C.-L. Cheng, E. Perevedentseva, Y.C. Lin, M. Kinnunen, A. Karmenian, Light scattering and laser manipulation in the studies of red blood cells microrheology, International Conference on Laser Application in Life Science, 06/29 – 07/02, 2014 Ulm, Germany. (P.203) (**Invited talk**).
18. Yu-Chung Lin, Lin-Wei Tsai, Alexander Priezzhev, Elena Perevedentseva, Andrey Lugovtsov, Olga Fadukova, Vladimir Koshelev, Chia-Liang Cheng*, Nanodiamond for bio-imaging and drug delivery: the effects to blood rheology in vitro and in vivo, MRS-Spring, April 21-25, 2014, San Francisco, CA USA, (**Invited talk**).
19. A. Priezzhev, A. Lugovtsov, O. Fadyakova, V. Koshelev, Y.-C. Lin, E. Perevedentseva, C.-L. Cheng, Analysis of effects of nanodiamond at in vivo applications. Hasselt Diamond Workshop 2014 SBDDXIX, Feb 19-21, 2014, Hasselt, Belgium, 12.4 (Oral)
20. E. Perevedentseva*, A. Priezzhev, A. Lugovtsov, Y.-C. Lin, Y.-S. Ye, L.-W. Tsai, M. Jani, O. Fadyakova, V. Koshelev, C.-L. Cheng, Studies of nanodiamond effects on blood properties: in-vivo and in vitro. 2013 MRS Fall meeting, Dec. 1-6 2013, Boston, MA, USA, S5.06 (Oral).
21. Ashek-I-Ahmed, D. Shepel, E. Perevedentseva, Y.-C. Lin, K.T. Wu, Characterization of nanodiamond-glycine-proteins heterostructures complex as nanoprobe. Carbon-based nano-materials and devices II, Nov. 3-8, 2013, Hualien, Taiwan, P.15 (Poster).
22. E. Perevedentseva, A. Karmenyan, N. Melnik, Jani Mona, D. Shepel, Y.-C. Lin, L.-W. Tsai, O. Plyashechnik, C.-L. Cheng, Surface effects on nanodiamond photoluminescence, 2013 JSAP-MRS Joint Meeting, 16-20 Sept, Kyoto, Japan, 17p-PM3-5 (Poster).
23. Y.- C. Lin,¹ E. Perevedentseva,^{1,2} L.-Wei Tsai,¹ A. Lugovtsov,³ A. Priezzhev,³ C.- L. Cheng¹, Nanodiamond for medical applications: interaction with blood in vitro and in vivo, International Conference on Diamond and Carbon Materials, 2-6 Sept 2013, Riva del Garda, Italy (**Invited talk**).
24. Y.- C. Lin,¹ E. Perevedentseva,^{1,2} Y.- S. Ye,¹ C.- L. Cheng^{1,*}, Nanodiamond as Hemoglobin based Artificial Blood Substitutes, 第十屆海峽兩岸奈米科學與技術研討會, The 10th Cross-Strait Workshop on Nanoscience and Nanotechnology, Hulunbeier, August 9-14, 2013 China. (**Invited talk**).
25. Y. - C. Lin,¹ E. Perevedentseva,^{1,2} L.-W. Tsai¹, Y.- S. Ye,¹ C.- L. Cheng^{1,*} Nanodiamond-hemoglobin complex designed for artificial blood substitute, The IV international symposium, Topical Problems of Biophotonic 2013, 21-27 July 2013, Nizhny Novgorod, Russia (**Invited talk**).

26. E. Perevedentseva, A. Karmenyan, N. Melnik, J. Mona, D. Shepel, Y-C Lin, L.-W. Tsai, C.-L. Cheng, Using nanodiamond's fluorescence in bioapplications. Topical Problems of Biophotonic 2013, 21-27 July 2013, Nizhny Novgorod, Russia. **(Invited talk)**.
27. A.V. Priezzhev, A. E. Lugovtsov, L. Lee, V.B. Koshelev, O.E. Fadyakova, M.D. Lin, G. M. Naumova, V.U. Kalechnik, E.V. Perevedentseva, and C.L. Cheng, Effect of nanodiamond on the microrheologic properties of blood and vasomotor reaction of isolated vessels of rats under in-vitro and in-vivo incubation. Topical Problems of Biophotonic 2013, 21-27 July 2013, Nizhny Novgorod, Russia. **(Invited talk)**.
28. Y. - C. Lin,¹ C.-Y. Lee¹, L.-W. Tsai¹, E. Perevedentseva,^{1,3} K. - J. Huang², Y.- S. Ye,¹ C.-L. Cheng^{1,*}Nanodiamond as Hemoglobin based Artificial Blood Substitutes, Collaborative Conference on 3D & Materials Research (CC3DMR), 24-28 June, 2013, Jeju Korea **(Invited talk)**
29. A. E. Lugovtsov, A.V. Priezzhev, S.Yu. Nikitin, V.B. Koshelev, O.E. Fadyukova, G.M. Naumova, M.D. Lin, E.V. Perevedentseva, C.L. Cheng, "Optical study of the effect of carbon nanoparticles on human and rat blood microrheological properties", 11th International Conference on Photonics and Imaging in Biology and Medicine (PIBM-2013), 26-29 May 2013, Wuhan (China), pp. 42-43 (Oral)
30. C.-L. Cheng, Biophysical interaction of Nanodiamond and unicellular organisms *in vivo*, International Conference on New Diamond and Nano Carbon, 20-23 May 2013, Singapore. **(Invited talk)**
31. Y. C. Lin, L. W. Tsai, Mona Jani, E. Perevedentseva, C. L. Cheng, Near Infrared Single Photon Emission from Nanodiamond's Color Center at Low Temperature. International Conference on New Diamond and Nano carbons Conference NDNC2013, 19-23 on May, Singapore, 76. (Poster).
32. Mona Jani, E. Perevedentseva, A. Chatterjee, C.Y. Cheng, Y. S. Ye, C. L. Cheng, The antibacterial effect of ultrafine nanodiamond against gram-negative bacteria Escherichia coli. International Conference on New Diamond and Nano carbons Conference NDNC2013, 19-23 on May, Singapore, 78. (Poster).
33. Mona Jani, C. J. Kuo, E. Perevedentseva, C.L. Cheng. Study of Adsorption of Human Blood Plasma on nanodiamond and its influence on Activated Partial Thromoplastin Time. International Conference on New Diamond and Nano carbons Conference NDNC2013, 19-23 on May, Singapore, 80. (Poster).
34. C.-L. Cheng, Nanodiamond for Bio Imaging and Drug Delivery, International Conference on Nanotechnology in Medicine" (NanoMED), 7-9 November 2012 at University College London, UK. **(Invited talk)**.
35. E. Perevedentseva, Y.-C. Lin, L.-W. Tsai, C.-L. Cheng, Spectroscopic properties of diamond nanoparticles for imaging and delivery tracing in-vivo: from cell to organism. 20th International Conference on Advanced Laser Technology ALT'12, 2-6 Sept 2012 Thun, Switzerland, 267 **(Invited talk)**.
36. A. Karmenyan, A. Shakhbazyan, A. Krivokharchenko, E. Perevedentseva, A. Zalesski, O. Sarkisov, C.-L. Cheng, and A. Chiou, Laser Embryology: application of advanced laser technology for micromanipulation and diagnostics of functional state of early mammalian embryos. 20th International Conference on Advanced Laser Technology ALT'12, 2-6 Sept 2012 Thun, Switzerland, 183 **(Invited talk)**.
37. A. E. Lugovtsov, A. V. Priezzhev, Y. S. Samsonova, O. E. Fadyukova, V. B. Koshelev, G. M. Naumova, E. V. Perevedentseva, C. L. Cheng, Effect of carbon nanoparticles on microrheological properties of human and rat blood by means of laser ectacytometry and aggregometry. 20th International Conference on Advanced Laser Technology ALT'12, 2-6 Sept 2012 Thun, Switzerland, 333 (Poster)
38. Y. C. Lin, E. Perevedentseva, Y.S. Ye, C.L. Cheng, Nanodiamond as hemoglobin based artificial blood substitutes, International Conference on Diamond and Carbon Materials, 3-6 Sept 2012, Granada, Spain (Oral)
39. E. Perevedentseva, Y.-C. Lin, L.-W. Tsai, A. K. Karmenyan, C.-L. Cheng*, The Interaction of Nanodiamond and Nanodiamond-Biomolecules Complexes with Biological Objects Using Raman Imaging 23rd International Conference on Raman Spectroscopy, Bangalore, India - ICORS 2012, August 12 - 17, 2012. **(Invited talk)**

五、其他著作或專利：

Patent:

1. 趙瑞益、陳清漂、鄭嘉良，包含奈米鑽石載體、藥物及其製備的方法和用途，中華明國 I-414309 號專利，2013/11/11~2029/7/12 (Nov 12, 2013)
2. J. I Chao, Chinpiao Chen, Chia-Liang Cheng, Carrier Comprising Nanodiamond, Method for preparing the same and use thereof, USA pattern (No. 12/574,958, pending 2017)

六、三年內之研究計畫 (2014.8~2017.7)：

中文計畫名稱	英文計畫名稱	計畫內擔任的工作	起訖年月	補助或委託機構	執行情形	經費總額
奈米前瞻科技在博物館計畫 - 總計畫暨子計畫一 (2/3)(105-2514-S-359-001-)	奈米前瞻科技在博物館計畫 - The Project of Development for Advanced Nanotechnology Exhibit(2/3)(105-2514-S-359-001-)	共同主持人	2016/07/01~2017/06/30	科技部	執行中	1,500,000
飛秒雷射之奈米手術對哺乳動物早期胚胎發育的生化機制及光譜研究 (105-2923-B-320-001-MY3)	Laser impact mechanisms on early mammalian embryos at femtosecond nanosurgery manipulation: physical-chemical and biochemical investigation(105-2923-B-320-001-MY3)	共同主持人	2016/01/01~2018/12/31	科技部	執行中	2,115,000
奈米前瞻科技在博物館計畫 - 總計畫暨子計畫一 (1/3)(104-2514-S-359-001-)	奈米前瞻科技在博物館計畫 - The Project of Development for Advanced Nanotechnology Exhibit(1/3)(104-2514-S-359-001-)	共同主持人	2015/07/01~2016/07/31	科技部	已結案	1,600,000
奈米國家型創新科技研發成果轉化：奈米鑽石及碳材料科普展示開發與推廣計畫 (103-2120-S-359-003-)	Transform the Innovative Technology Achievement in National Program of Nanotechnology: The Project of Development and Promotion for Nano-Diamond Exhibit.(103-2120-S-359-003-)	共同主持人	2014/10/01~2016/05/31	科技部	已結案	4,000,000
奈米鑽石螢光在生物醫學上的基礎與應用研究 (103-2112-M-259-001-MY3)	Nanodiamond's fluorescence for bio and medical applications: Fundamentals and Applications (I), (II), (III)(103-2112-M-259-001-MY3)	主持人	2014/08/01~2017/07/31	科技部	執行中	8,648,000
奈米鑽石做為藥物傳遞的生物醫學應用 (3/3)(102-2120-M-259-001-)	Drug delivery through Nanodiamond-drug complexes in animal models(102-2120-M-259-001-)	主持人	2013/08/01~2015/05/31	科技部	已結案	8,000,000

碳結構奈米粒子作為生物醫學上的應用：對血液及心血管系統的性質與功能影響研究 (101-2923-M-259-001-MY3)	Carbon nanoparticles for biomedical applications: Effects on the blood properties and functions of cardiovascular system(101-2923-M-259-001-MY3)	主持人	2012/08/01~ 2015/07/31	科技部	已結案	1,980,000
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十一、教學與研究獎勵事蹟：

學年度	校內/校外	項目
2016	校外	Elected as Foreign Member, A. M. Prokhorov Academy of Engineering Sciences, Russia (March 2016, No 66). 獲選俄羅斯 A. M. Prokhorov Academy of Engineering Science 外籍院士 (Mar 2016, No.66)