

(A) SCI Journal Papers: C. - L. Cheng (1996 ~) *Corresponding author (July 11, 2023 updated)

Total SCI papers=129;

International Conference=189; Plenary =3; Keynote=2; invited talk=69,

h-index= 41; total citation=5914 (Google Scholar, July 11, 2023)

1. Mg-Doped CoCr₂O₄ Nanoparticles: Implications for Magnetic Memory and Magnetocaloric Effect, Manjunatha, Krishtappa; Chiu, Hsin-Hao; Ho, MING-KANG; Hsu, Tsu-En; Yu, Shih-Lung; Chin, Chu-En; Cheng, Chia-Liang; de Oliveira, Marisa; Longo, Elson; Ribeiro, Renan A. P.; Nagabhushana, Hanumanthappa; Wu, Sheng Yun*, **ACS Applied Nano Materials** (June 20, 2023, published).
2. Femtosecond Laser Microsurgery of Mouse Oocytes: Formation and Dynamics of Cavitation Bubbles Under the Action of Sharply Focused Laser Radiation on Various Oocyte Zones, AA Astafiev, AM Shakhov, AA Osychenko, D Yu Martirosyan, WA Tochilo, AD Zalessky, MS Syrchina, AV Karmenyan, Chia-Liang Cheng, VA Nadochenko, **Russian Journal of Physical Chemistry B**, 17, 1, 148-158 (Feb, 2023)
3. Raman spectroscopic signals of carotenoid distribution during stages of cell growth of unicellular organisms and plant cells, Pooja Manik Badgular¹, Yu-Chung Lin¹, Zhe-Rui Lin¹, Ming-Der Lin², Chia-Liang Cheng*, **J. Raman Spectroscopy**, Apr 28, 2023 accepted; <https://doi.org/10.1002/jrs.6537>
4. SYNAPSE: An international roadmap to large brain imaging, Anton P.J. Stampfl et al. (41 authors), **Physics Reports** 999 (2023) 1–60.
5. Precise Sn-Doping Modulation for Optimizing CdWO₄ Nanorod Photoluminescence, K. Manjunatha, Ming-Kang Ho, Tsu-En Hsu, Hsin-Hao Chiu, Tai-Yue Li, B. Vijaya Kumar, P. Muralidhar Reddy, Ting San Chan, Yu-Hao Wu, Bi-Hsuan Lin, Artashes Karmenyan, Chia-Liang Cheng, Ashish Chhaganlal Gandhi and Sheng Yun Wu*, **Int. J. Mol. Sci.** (Dec 2, 2022), 23, 15123. <https://doi.org/10.3390/ijms232315123>.
6. Amorphous carbon films with embedded well-dispersed nanodiamonds for antimicrobial coating, Oleg Streletskiy, Elena Perevedentseva, Ilya Zavidovskiy, Artashes Karmenyan, Chia-Liang Cheng, Vladimir Sychev, Vera Sadykova, Anastasia Kuvarina, **Magnetochemistry** Nov 26, 2022, 8(12), 171; <https://doi.org/10.3390/magnetochemistry8120171>.
7. Modulation of Magnetic and Luminescence Properties via Control Cu-Doped in CdWO₄ Nanorods for Photocatalytic Applications, Ashish Chhaganlal Gandhi, Hsin-Hao Chiu, Ming-Kang Ho, Tsu-En Hsu, Tai-Yue Li, Yu-Hao Wu, B. Vijaya Kumar, P. Muralidhar Reddy, Bi-Hsuan Lin, Chia-Liang Cheng, Sheng Yun Wu*, **ACS Applied Nano Materials**. 2022, 5, 10, 14811–14823 (Sept 21, 2022)
8. Vibrational and Electrochemical Studies of Pectin - A Candidate Towards Environmental Friendly Li-ion Battery Development, Phillip M Wu*, Ching Yi Chung, Yan Ruei Chen, Yu Hsuan Su, Kuei Shu Chang-Liao Po Wei Chi, Tanmoy Paul, Yun Ju Chen, Yeng Long Chen, Sea Fue Wang, Pooja Badgular, Bo-Nian Chen, Chia Liang Cheng, Maw Kuen Wu, **PNAS Nexus** Volume 1, Issue 4, September pgac 2022,127, <https://doi.org/10.1093/pnasnexus/pgac127> (July 12, 2022 accepted)
9. Nanodiamond-Induced Thrombocytopenia in Mice Involve P-Selectin-Dependent Nlrp3 Inflammasome-Mediated Platelet Aggregation, Pyroptosis and Apoptosis Shih-Che Hung, Lu-Chu Ke, Te-Sheng Lien, Hsuan-Shun Huang, Der-Shan Su, Chia-Liang Cheng, Hsin-Hou-Chang*, **Frontiers in Immunology**, V13, Art. 806686 (April 22, 2022).
10. Multimodal bioimaging using nanodiamond and gold hybrid nanoparticles, Yu-Chung Lin, Elena Perevedentseva, Zhe-Rui Lin, Chia-Chi Chang, Hsiang-Hsin Chen, Shun-Min Yang, Ming-Der Lin⁴, Artashes Karmenyan, Giorgio Speranza, Luca Minati, Christoph Nebel, Chia -

Liang Cheng*, **Scientific Reports**, 12, 5331(Mar 2022).

11. Multifunctional plasmonic gold nanostars for cancer diagnostic and therapeutic applications Wrenit Gem Pearl¹, Elena V. Perevedentseva^{1,2}, Artashes V. Karmenyan¹, Vitaly A. Khanadeev^{3,4}, Nikolai G. Khlebtsov^{3,5}, Sheng-Yun Wu¹, Yuan-Ron Ma¹, Chia-Liang Cheng^{1*}, **J. of Biophotonics**, 2022,15(3), e202100264.<https://doi.org/10.1002/jbio.202100264>
12. Antiferromagnetic spin correlations above the bulk ordering temperature in NiO nanoparticles: Effect of extrinsic factors, Tai-Yue Li, Ming-Kang Ho, Tus-En Hsu, Hsin-Hao Chiu, Kuan-Ting Wu, Jen-Chih Peng, Chun-Ming Wu, Ting Shan Chan, B. Vijaya Kumar, P. Muralidhar Reddy, Shyue-Chu Ke, Chia-Liang Cheng, Ashish Chhaganlal Gandhi*, Sheng Yun Wu*, **Applied Surface Science**, 578 (2022) 15208. (Nov 30, 2021)
13. Carboxylated/Oxidized Diamond Nanoparticles for Quantifying Immunoglobulin G Antibodies Using Mass Spectrometry, Patil, Avinash A.; Descanzo, Mhikee Janella N.; Agcaoili, Justin Benedict A. ; Chiang, Cheng-Kang; Cheng, Chia-Liang; Chang, Huan-Cheng; Peng, Wen-Ping*, **ACS Applied Nano Materials**, September 2,2021. DOI:10.1021/acsanm.1c01553.
14. Raman Spectroscopic Study of TiO₂ Nanoparticles effects on the Hemoglobin State in Individual Red Blood Cell, Elena Perevedentseva*, Yu-Chung Lin, Artashes Karmenyan, Kuan-Ting Wu, Andrei Lugovtsov, Evgeny Shirshin, Alexander Priezhev, Chia-Liang Cheng*, **Materials**, 9 October 2021, 14(20), 5920. DOI:10.3390/ma14205920.
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16. A Light-Mediated Study of carotenoids in carrots (*Daucus carota*) using Resonance Raman Spectroscopy, Pooja Manik Badgular, Yu-Chun Wang, Chia-Liang Cheng*, **J. Raman Spectroscopy**, 14 June 2021; DOI:10.1002/jrs.6176.
17. Rutile-phase TiO₂@carbon core-shell nanowires and their photoactivation in visible light region, Lokesh Saravanan, Ranjit A. Patil, Pangihutan Gultom, Brajesh Kumar, Arumugam Manikandan, Yen-Pei Fu, Yu-Lun Chueh, Chia-Liang Cheng, Wang-Chi Yeh, Yuan-Ron Ma, **Carbon**, 181, 280-289 (2021 may) DOI:10.1016/j.carbon.2021.04.101.
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28. Po-Han Tseng^{1,#}, Zong-Lin Sie^{1,#}, Meng-Chieh Liu¹, Han-Syuan Lin¹, Wan-Yu Yang¹, Ting-Yu Lin¹, Hsing-Pang Hsieh², Shih-Che Hung^{3,4}, Chia-Liang Cheng⁵, Hsin-Hou Chang^{3,4,*}, Chiou-Hwa Yuh^{1, 6, 7, 8,*}, Identification of two novel small compounds that inhibit liver cancer formation in zebrafish and analysis of their conjugation to nanodiamonds to further reduce toxicity, **Advanced Therapeutics**, 1900105 (Sept 13, 2019).
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1. Photo responsive nanodiamond based image guided therapeutic strategy for tumour hypoxia, Rajakar Selvam¹, Wrenit Gem Pearl¹, Artashes Karmenyan¹, Elena V. Perevedentseva², Chia-Liang Cheng^{1*}, Hasselt Diamond Workshop, SBDD XXVII, Mar 15-17, 2023, Hasselt Belgium. **(Oral)**

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5. Nanodiamond: The material and its applications, Chia-Liang Cheng, P. N. Lebedev institute of Physics, Russian Academy of Science, 09-16-2022. **(Invited talk)**
6. Study the life activity of regenerative worm *Aeolosoma Viride* using Raman spectroscopy and Two-Photon Fluorescence Lifetime Imaging Microscopy, Pooja Manik Badgujar, Jia-Hua Wu, Pei-Yang Huang, Wrenit Gem Pearl, Artashes V. Karmenyan, Elena V. Perevedentseva, Jiun-Hong Chen, Chia-Liang Cheng*, ALT22, the 29th International Conference on Advanced Laser Technology, Moscow, Russia, Sept 11-16, 2022. **(Invited talk)**
7. Microrheologic effects of magnetic nanodiamonds assessed by laser methods; A. E. Lugovtsov¹, P.B. Ermolinskiy¹, E.V. Perevedentseva², C.-L. Cheng³, A.V. Priezzhev; ALT22, Moscow, Russia, Sept 11-16, 2022. **(Invited talk)**
8. Nanoparticles safety verification for their biomedical applications: from micro rheologic point of view; The 3rd international scientific school on “Biomedical laser technologies; Andrei Lugovtsov¹, Evgeny Shirshin², Petr Ermolinskiy³, Chia-Liang Cheng⁴, Alexander Priezzhev⁵ FLAMN-2022 **(Invited talk)**
9. A 3D Co-cultured model for evaluation of nanoparticle facilitated drug delivery, Chia-Chi Chang, Yu-Chung Lin and Chia-Liang Cheng*, International Conference on Laser Applications on Life Science, LALS 2022, Nancy France, 04 01-02, 2022. **(Invited talk, online)**
10. Multimodalities of diamond nanoparticles for imaging and drug delivery in 3D cellular models E. Perevedentseva^{1,2}, Y.-C. Lin¹, Z.-R. Lin¹, C.-C. Chang¹, C.-L. Cheng^{1*}, 2021 MRS Fall Meeting, Symposium SB03.06, 12/06-12/08, 2021, Boston, MA, USA. **(Invited talk, online)**
11. The Impact of Nanodiamond on Early Developing Mammalian Embryos, Micahella Sarmiento¹, A. Krivoharchenko², S. Manuel^{1,3}, C.-H. Lee³, A. Karmenyan¹, E. Perevedentseva^{1,4}, V. Natochenko², Chia-Liang Cheng^{1*}, International Conference on New Diamond and Nano Carbon, NDNC, June 06-07, 2021 Japan. (Oral, online)
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23. Y. -C. Lin, K. -T. Wu, Z. -R. Lin, C. -C. Chang, E. Perevedentseva, C. -L. Cheng. Spectroscopic Characterization in Bio Systems and Nanoparticle-Mediated Drug Delivery. The 26th International Conference on Raman Spectroscopy XXVI ICORS Jeju Korea Aug 26-31, 2018 **(Invited talk)**
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27. E. Perevedentseva, A. Karmenyan, Y.C. Lin, A.-I-Ahmed, N. Ali, M. Kinnunen, O. Bibikova, I. Skovorodkin, S. Vainio, C.L. Cheng. Study of Nanoparticles Interaction with Biological Tissues Using Comparative Optical-Spectroscopic Methods. 5th International A.M. Prokhorov Symposium on Lasers in Medicine and Biophotonics. ICLO2018, 4-7 June 2018, Sankt Petersburg, Russia. **(Invited talk)**

28. Yu-Chung Lin, E. Perevedentseva, Z.-R. Lin, C. E. Nebel, G. Speranza, A. Karmenyan, C.-L. Cheng. Nanodiamond–gold core shell nanoparticles for bio-imaging applications. ICLO2018, 4-7 June 2018, Sankt Petersburg, Russia. **(Invited talk)**
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30. Chia-Liang Cheng*, Laser spectroscopy, nanomaterial in biomedical applications, The 25th International Conference on Advanced Laser Technologies, Sept 10-15, 2017, Busan, Korea, **(Plenary Talk)**.
31. J.- R. Lin, Y.- C. Lin, K.-T. Wu, E. Perevedentseva, Chia- Liang Cheng*, Drug Loading and Efficiency of Nanodiamond-anticancer drug Complex in 2D and 3D models, The VI International Symposium “Topical Problem in Biophotonics 2017”, 28 July-3 Aug, 2017, *Nizhny Novgorod, Russia*, Russia. **(Invited talk)**
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34. 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)**
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38. 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)**.
39. 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)**
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45. 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**).
46. Chia-Liang Cheng*, Recent Developments on Nanodiamond for Bio/medical applications, Saratov Fall Meeting 2014, Saratov (Russia) 22-26 September 2014, (**Plenary talk**).
47. 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**).
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49. 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. Karmanian, 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**).
50. 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**).
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53. 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).
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55. 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**).
56. 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**).
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 61. 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)
 62. 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**)
 63. 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).
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 66. 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**).
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 68. 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**).
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73. Priezhev A.V., Lugovtsov A.E., Samsonova Yu.S., Koshelev V.B., Fadyukova O.E., Naumova G.M., Cheng C.L., Perevedentseva E.V. Investigation of the effect on nanodiamond on microrheological properties of human and rat blood in vitro by means of laser aggregometry and diffractometry techniques. V Troitsk Conference Medical Physics and Innovation in Medicine (TKMΦ-5), 4-8 on June 2012, Troitsk, Russia, v.2, p.38-40 (Oral)
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Yi-Hong Cai: Studies of carbon-containing mixed phase titanium dioxide using Raman spectroscopy
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Shu-Yun Tang: Raman spectroscopic investigation of nanodiamond interaction with bacteria Escherichia coli
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Sian-Jhu Cai: Temperature desorption and spectroscopic studies of surface functionalized nanodiamond and their bio-medical applications
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Zih-Ci Hong : Surface enhanced Raman scattering observed using Ag-TiO₂ nano-structured powder from the photoreduction of AgNO₃ with visible-light activated TiO₂
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Shu-Bau Wu : Carbon assisted TiO₂ phase transformation
5. 涂誌賢：利用光譜學方法研究與尺寸相關以及單一經過光學鑷子操縱的奈米鑽石粒子(應用物理研究所)
Jhih-Sian Tu : The spectroscopic studies of size dependent and one single trapped aggregated nanodiamond particles
6. 周博文：碳與氧對於含碳之二氧化鈦薄膜在熱處理時相變化之效應(材料科學與工程研究所)
Po-Wen Chou : Effect of carbon and oxygen on phase transformation of annealed titania films

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Chih-Yuan Cheng : Spectroscopic study of nanodiamond-protein complexes and their interaction with bacteria and cells

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Yan-Ting He : Surface enhanced Raman scattering investigation of nanodiamonds
2. 鐘珮華：生物分子官能基化的奈米鑽石與細胞作用之光譜學研究(應用物理研究所)
Pei-Hua Chung : Spectroscopic study of bio-functionalized nanodiamonds and their interaction with cells

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(G) 指導專題研究學生：

蔣宜庭、邱鈺中、王家彬、黃郁仁、張尚樺、陳俊銘、顏秀蘭、吳岳翰、蔡東昇