

Complete List of Publications (as of July, 2023)

Refereed Journal Articles (in reversed chronological order) :

- (139) R. Chang, H. Y. Xie and **P. T. Leung**, “ Electromagnetic radiation from a spherical static current source coupled to harmonic axion field ” **Phys. Lett. A** **481**, 128991 (2023).
- (138) R. Chang, H. Y. Xie and **P. T. Leung**, “ Plasmonic hybridization in the presence of topological insulators ” **J. Opt. Soc. Am. B** **39**, 452-458 (2022).
- (137) R. Chang, H. Y. Xie and **P. T. Leung**, “ Surface plasmon resonance in the presence of topological insulators ” **Optik** **251**, 168424 (2022).
- (136) H. Y. Xie, R. Chang, and **P. T. Leung**, “ Dipole emission characteristics near a topological insulator sphere coated with a metallic nanoshell ” **Results in Physics** **23**, 104014 (2021).
- (135) **P. T. Leung**, “ The gauge principle from the Schrodinger-Born wave mechanics ” **J. Found. App. Phys.** **7**, 53-58 (2020).
- (134) **P. T. Leung** and G. J. Ni, " A new look at the quantum Liouville theorem " **J. Found. App. Phys.** **7**, 25-31 (2020).
- (133) H. Y. Xie and **P. T. Leung**, " Electromagnetic reciprocity in the presence of topological insulators " **J. Phys. Commun.** **4**, 095014 (2020).
- (132) R. Chang, H. Y. Xie, Y. C. Wang, H. P. Chiang, and **P. T. Leung**, " Topological magnetoelectric effect as probed by nanoshell plasmonic modes " **Results in Physics** **15**, 102744 (2019).
- (131) Edin Sijercic and **P. T. Leung**, “ Enhanced Terahertz emission from quantum dot by graphene coated nanoparticle ” **Appl. Phys. B** **124**: 141 (2018).
- (130) T. Bian, X. Gao, S. Yua, L. Jiang, J. Lua, and **P. T. Leung**, " Scattering of light from graphene-coated nanoparticles of negative refractive index " **Optik** **136**, 215-221 (2017).
- (129) R. Chang, H. Y. Chung, C. W. Chen, H. P. Chiang, and **P. T. Leung**, “ Optical effects of charges in colloidal solutions ” **Opt. Materials** **66**, 43-47 (2017).
- (128) E. Sijercic and **P. T. Leung**, “ Effects of surface charge on the anomalous light scattering from metallic nanoparticles ” **Opt. Commun.** **370**, 198-202 (2016).
- (127) T. Bian, R. Chang, and **P. T. Leung**, “ Förster resonance energy transfer between molecules in the vicinity of graphene-coated nanoparticles ” **Plasmonics** **5**, 1239-1246 (2016).

- (126) C. W. Chen, T. Bian, H. P. Chiang, and **P. T. Leung** " Nonlocal optical effects on the Goos-Hänchen shifts at multilayered hyperbolic metamaterials " **J. Opt.** **18**, 025104 (2016).
- (125) T. Bian, R. Chang, and **P. T. Leung**, " Optical interactions with a charged metallic nanoshell " **J. Opt. Soc. Am. B** **33**, 17-26 (2016).
- (124) H. Hajian, I. D. Rukhlenko , **P. T. Leung**, H. Caglayan, E. Ozbay, " Guided Plasmon Modes of a Graphene-Coated Kerr Slab " **Plasmonics** **11**, 735-741 (2016).
- (123) **P. T. Leung**, " On Maxwell's discovery of electromagnetic waves and the gauge condition " **Eur. J. Phys.** **36**, 025002 (2015).
- (122) R. Chang, **P. T. Leung**, and D. P. Tsai, " Effects of gain medium on the plasmonic enhancement of Forster resonance energy transfer in the vicinity of a metallic particle or cavity " **Optics Express** **22**, 27451-27461 (2014).
- (121) R. Chang and **P. T. Leung**, " Generalized reciprocal relations for transmission and reflection of light through a 1D stratified anisotropic metamaterial " **Optics Commun.** **329**, 125-128 (2014).
- (120) H. Hajian, A. Soltani-Vala, M. Kalafi, and **P. T. Leung**, " Surface plasmons of a graphene parallel plate waveguide bounded by Kerr-type nonlinear media " **J. Appl. Phys.** **115**, 083104 (2014).
- (119) H. Y. Chung, **P. T. Leung**, and D. P. Tsai, " Molecular fluorescence in the vicinity of a charged metallic nanoparticle " **Optics Express** **21**, 26483–26492 (2013).
- (118) M. L. Tseng, C. M. Chang, B. H. Cheng, P. C. Wu, K. S. Chung, M. K. Hsiao, H. W. Huang, D. W. Huang, H. P. Chiang, **P. T. Leung**, and D. P. Tsai " Multi-level surface enhanced Raman scattering using AgO_x thin film " **Optics Express** **21**, 24460-24467 (2013).
- (117) A. Caccavano and **P. T. Leung**, " Atomic spectroscopy and the photon mass: effects on the 21 cm radiation " **Phys. Letts. A** **377**, 2777-2779 (2013).
- (116) J. H. Huang and **P. T. Leung**, " Nonlocal optical effects on the Goos-Hänchen shift at an interface of a composite material of metallic nanoparticles " **J. Opt. Soc. Am. A** **30**, 1387-1393 (2013).
- (115) H. Y. Chung, **P. T. Leung**, and D. P. Tsai, " Effects of extraneous surface charges on the enhanced Raman scattering from metallic nanoparticles " **J. Chem. Phys.** **138**, 224101 (2013).

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- (113) H. Y. Chung, **P. T. Leung**, D. P. Tsai, " Decay rates of molecule in the vicinity of a spherical surface of an isotropic magnetodielectric material " **Phys. Rev. B** **86**, 155413 (2012).
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- (111) C. W. Chen, H.-P. Chiang, D. P. Tsai, and **P. T. Leung**, " Temperature dependence of the surface-plasmon-induced Goos-Hanchen shifts " **Appl. Phys. B** **107**, 111-118 (2012).
- (110) H. Y. Chung, **P. T. Leung**, and D. P. Tsai, "An effective medium approach to the dynamic optical response of a graded index plasmonic nanoparticle" **J. Opt. Soc. Am. B** **29**, 970-976 (2012).
- (109) H. Y. Chung, **P. T. Leung**, D. P. Tsai, " Fluorescence characteristics of a molecule in the vicinity of a plasmonic nanomatryoska: nonlocal optical effects " **Opt. Commun.** **285**, 2207-2211 (2012).
- (108) H. Y. Chung, **P. T. Leung**, and D. P. Tsai, “ Modified long wavelength approximation for the optical response of a graded index plasmonic nanoparticle” **Plasmonics** **7**, 13-18 (2012).
- (107) C. W. Chen, Y. W. Gu, H.-P. Chiang, E. J. Sanchez, and **P. T. Leung**, “ Goos-Hanchenshift at an interface of a composite material: effects of particulate clustering ” **Appl. Phys. B** **104**, 647-652 (2011).
- (106) H. Y. Chung, G. Y. Guo, H. P. Chiang, D. P. Tsai, and **P. T. Leung**, “ Accurate description of the optical response of a multilayered spherical system in the long wavelength approximation ” **Phys. Rev. B** **82**, 165440 (2010).
- (105) H. Y. Chung, **P. T. Leung**, and D. P. Tsai, “ Enhanced intermolecular energy transfer in the vicinity of a plasmonic nanorice ” **Plasmonics** **5**, 363-368 (2010).
- (104) C. W. Chen, H. Y. Chung, H. -P. Chiang, J. Y. Lu, R. Chang, D. P. Tsai, and **P. T. Leung**, “ Nonlocality and particle-clustering effects on the optical response of composite materials with metallic nanoparticles **Appl. Phys. A** **101**, 191 (2010).
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- (102) **P. T. Leung** and K. Young, “ Gauge invariance and reciprocity in quantum mechanics ” **Phys. Rev. A** **81**, 032107 (2010).

- (101) H. Y. Xie, **P. T. Leung**, and D. P. Tsai, “ Reciprocity theorem for nonlocal optics: completion of proof and application to spectroscopic analysis ” **J. Opt. A** **12**, 035006 (2010).
- (100) H. Y. Xie, H. Y. Chung, **P. T. Leung**, and D. P. Tsai, “ Plasmonic enhancement of Forster energy transfer at a metallic nanoparticle: nonlocal optical effects ” **Phys. Rev. B** **80**, 155448 (2009).
- (99) H. Y. Chung, H. Y. Xie, **P. T. Leung**, and D. P. Tsai, “ Optical properties of metallic nanoshell composites: effects of temperature and particle-clustering ” **Solid State Commun.** **149**, 2151-2154 (2009).
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- (96) H. Y. Xie, **P. T. Leung**, and D. P. Tsai, “ Molecular decay rates and emission frequencies in the vicinity of an anisotropic metamaterial ” **Solid State Commun.** **149**, 625-629 (2009).
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- (93) H. Y. Xie, **P. T. Leung** and D. P. Tsai, “ General proof of optical reciprocity for nonlocal electrodynamics ” **J. Phys. A.** **42**, 045402 (2009).
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