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著作目錄

【期刊論文】

理論論文：

1. **Y. H. Chiu***, Y. C. Ou, W. P. Su, and M. F. Lin*, "Electronic properties of monolayer graphene under various external fields", Review article, submitted to New Journal of Physics, under review.
2. Chiun-Yan Lin, Jhao-Ying Wu, **Yu-Huang Chiu***, Cheng-Pong Chang, Ming-Fa Lin*, "Stacking-dependent magneto-electronic properties in multilayer graphenes", submitted to Carbon, under review.
3. R. B. Chen, **Y. H. Chiu***, and M. F. Lin*, "Beating oscillations of magneto-optical spectra in simple hexagonal graphite", Submitted to ACS Photonics, under review.
4. Y. C. Ou, **Y. H. Chiu***, P. H. Yang*, and M. F. Lin*, "The selection rule of graphene in a composite magnetic field", Optics Express 22, 7473-7491 (2014).
5. Y. C. Ou, **Y. H. Chiu***, J. M. Lu, W. P. Su*, and M. F. Lin*, "Electric modulation effect on magneto-optical spectrum of monolayer graphene", Computer Physics Communications 184, 1821-1826 (2013). (SCI, 2012 IF Ranking)
6. R. B. Chen, **Y. H. Chiu**, and M. F. Lin, "A theoretical evaluation of the magneto-optical properties of AA-stacked graphite", Carbon 54, 268-276 (2013). (SCI, 2011 IF 5.378, Ranking 21/232)
7. S. J. Tsai, **Y. H. Chiu***, Y. H. Ho*, and M. F. Lin*, "Gate-voltage-dependent Landau levels in AA-stacked bilayer

- graphene", Chem. Phys. Lett., **550**, 104-110 (2012). (SCI, 2011 IF 2.337, Ranking 12/33)
8. C. H. Ho, Y. H. Ho, Y. Y. Liao, **Y. H. Chiu***, C. P. Chang*, and M. F. Lin*, "Diagonalization of Landau Level Spectra in Rhombohedral Graphite", J. Phys. Soc. Jpn. **81**, 024701 (2012). (SCI, 2011 IF 2.364, Ranking 14/84)
9. S. J. Tsai, J. K. Sheu, C. H. Ho, **Y. H. Chiu***, and M. F. Lin*, "Modulation effects of periodic electric potentials on the electronic properties of bilayer Bernal graphene: Tight-binding model", J. Phys. Soc. Jpn. **81**, 014705 (2012). (SCI, 2011 IF 2.364, Ranking 14/84)
10. R. B. Chen and **Y. H. Chiu***, "Landau subband and Landau level properties of AA-stacked graphene superlattice", Journal of Nanoscience and Nanotechnology **12**, 2557-2566 (2012). (SCI, 2011 IF 1.351 Ranking 90/232)
11. J. Wang, **Y. H. Chiu**, Y. H. Ho*, T. S. Li*, and M. F. Lin*, "Exact diagonalization of Landau levels in Bernal graphite", Solid State Communications **151**, 1410 (2011). (SCI, 2010 IF 1.979, Ranking 31/69)
12. Y. H. Ho, **Y. H. Chiu**, W. P. Su*, and M. F. Lin*, "Magneto-absorption spectra in Bernal Graphite", Appl. Phys. Lett. **99**, 011914 (2011). (SCI, IF 3.820, Ranking 17/125)
13. Y. C. Ou, J. K. Sheu, **Y. H. Chiu***, R. B. Chen*, and M. F. Lin*, "Influence of modulated fields on the Landau level properties of graphene", Phys. Rev. B **83**, 195405 (2011). (SCI, IF 3.772, Ranking 13/69)
14. Y. H. Ho, J. Wang, **Y. H. Chiu***, W. P. Su*, and M. F. Lin*,

"Characterization of Landau subbands in graphite: A tight-binding study", Phys. Rev. B **83**, 121201(R) (2011). (SCI, 2010 IF 3.772, Ranking 13/69)

15. C. H. Ho, S. J. Tsai, R. B. Chen, **Y. H. Chiu***, and M. F. Lin*, "Low-energy Landau level spectrum in ABC-stacked trilayer graphene", Journal of Nanoscience and Nanotechnology **11**, 4938-4947 (2011). (SCI, IF 1.351, Ranking 90/232)
16. Y. H. Ho, **Y. H. Chiu**, J. Wang, D. H. Lin and M. F. Lin*, "Magneto-optical properties of monolayer and AB-stacked bilayer graphene", Jpn. J. Appl. Phys. **50**, 01AF05 (2011) (SCI, IF 1.02, Ranking 76/125)
17. C. H. Ho, Y. H. Ho, **Y. H. Chiu***, Y. N. Chen*, and M. F. Lin*, "Characteristics of low-energy Landau levels in rhombohedral trilayer graphene", Annals of Physics **326**, 721 (2011). (SCI, IF 2.919, Ranking 12/84)
18. Y. H. Ho, J. Y. Wu, R. B. Chen, **Y. H. Chiu***, and M. F. Lin*, "Optical transitions between Landau levels: AA-stacked bilayer graphene", Appl. Phys. Lett. **97**, 101905 (2010). (SCI, IF 3.820, Ranking 14/108)
19. Y. H. Ho, J. Y. Wu, **Y. H. Chiu**, J. Wang, and M. F. Lin*, "Electronic and optical properties of monolayer and bilayer graphenes", Phil. Trans. R. Soc. A **368** 5445 (2010) (invited article). (SCI, IF 2.457, Ranking 9/50)
20. S. J. Tsai, J. H. Ho, **Y. H. Chiu***, and M. F. Lin*, "Band structures of Bernal graphene modulated by electric fields", Physica E **42**, 2796 (2010). (SCI, IF 1.304, Ranking 38/66)

- 21.** Y. C. Ou, **Y. H. Chiu***, and M. F. Lin*, "Electronic properties of monolayer graphene in the presence of the uniform magnetic and modulated electric fields", Diamond & Related Materials **19**, 604 (2010). (SCI, IF 1.825, Ranking 59/214)
- 22.** Y. H. Ho, **Y. H. Chiu***, D. H. Lin, C. P. Chang, and M. F. Lin*, "Magneto-optical selection rules in bilayer Bernal graphene", ACS Nano **4**, 1465 (2010). (SCI, IF 9.855, Ranking 10/214)
- 23.** **Y. H. Chiu**, Y. C. Ou, Y. Y. Liao, and M. F. Lin*, "Optical absorption spectra of single-layer graphene in a periodic magnetic field", J. Vac. Sci. Technol. B **28**, 386 (2010). (SCI, IF 1.268, Ranking 77/246)
- 24.** Y. H. Ho, **Y. H. Chiu**, J. M. Lu, and M. F. Lin*, "Low-energy electronic structures of nanotube-graphene hybrid carbon systems", Physica E **42**, 744 (2010). (SCI, IF 1.304, Ranking 38/66)
- 25.** J. H. Ho, **Y. H. Chiu**, S. J. Tsai, and M. F. Lin*, "Semimetallic graphene in a modulated electric potential", Phys. Rev. B **79**, 115427(7) (2009). (SCI, IF 3.475, Ranking 12/66)
- 26.** **Y. H. Chiu**, J. H. Ho, Y. H. Ho, D. S. Chuu*, and M. F. Lin*, "Effects of a modulated electric field on the optical absorption spectra in a single-layer graphene", Journal of Nanoscience and Nanotechnology **9**, 6579-6586 (2009). (SCI, IF 1.435, Ranking 86/214)
- 27.** J. Y. Wu, **Y. H. Chiu**, J. Y. Lien, and M. F. Lin*, "The effects of the modulated magnetic fields on electronic structures of graphene nanoribbons", Journal of Nanoscience and Nanotechnology **9**, 3193-3200 (2009). (SCI, IF 1.435, Ranking 86/214)
- 28.** **Y. H. Chiu**, J. H. Ho, C. P. Chang, D. S. Chuu*, and M. F. Lin*,

"Low-frequency magneto-optical excitations in a monolayer graphene", Phys. Rev. B **78**, 245411(10) (2008). (SCI, IF 3.322, Ranking 12/66)

- 29.** J. H. Ho, Y. H. Lai, **Y. H. Chiu**, and M. F. Lin*, "Landau levels in graphene", Physica E **40**, 1722-1725 (2008). (SCI, IF 1.230, Ranking 38/66)
- 30.** **Y. H. Chiu**, Y. H. Lai, J. H. Ho, D. S. Chuu*, and M. F. Lin*, "Magnetic energy bands of a 2D graphite layer in the spatially modulated magnetic field", Physica E **40**, 2022-2024 (2008). (SCI, IF 1.230, Ranking 38/66)
- 31.** **Y. H. Chiu**, Y. H. Lai, J. H. Ho, D. S. Chuu*, and M. F. Lin*, "Electronic structure of a two-dimensional graphene monolayer in a spatially modulated magnetic field: Peierls tight-binding model", Phys. Rev. B **77**, 045407(6) (2008). (SCI, IF 3.322, Ranking 12/66)
- 32.** J. H. Ho, Y. H. Lai, **Y. H. Chiu**, and M. F. Lin*, "Modulation effects on Landau levels in a monolayer graphene", Nanotechnology **19**, 035712(6) (2008). (SCI, IF 3.446, Ranking 2/79)
- 33.** C. W. Chiu, **Y. H. Chiu**, F. L. Shyu, C. P. Chang, D. S. Chuu, and M. F. Lin*, "Temperature-dependent carrier dynamics in metallic carbon nanotubes", Phys. Lett. A **346**, 347-354 (2005). (SCI, IF 1.550, Ranking 21/69)

實驗論文：

- 34.** H.-N. Lin*, C.-R. Chang, and **Y. H. Chiou**, "Magnetic force microscopy study of a defect induced orthogonal magnetic structure on a cobalt film", J. Mag. Mag. Mater. **209**, 243-245 (2000). (SCI, IF

0.996)

35. H.-N. Lin*, **Y. H. Chiou**, B.-M. Chen, H.-P. Shieh, and C.-R. Chang, "Magnetic force microscopy study of domain walls on a thin cobalt film", J. Appl. Phys. **83**, 4997-4999 (1998). (SCI, IF 2.275)

【會議論文】

1. **Y. H. Chiu** and Sheng-Lin Chang, "Electronic Properties of Graphene Oxide with Epoxide-Stripe Structures", **13th Workshop on First-Principles Computational Materials Physics (February 2014)**.
2. Y. C. Ou, **Y. H. Chiu**, M. F. Lin, "Modulated-field effects the selection rules in the optical absorption spectra of graphene", **Annual Meeting of the Physical Society of ROC** (January, 2012).
3. Y. C. Ou, **Y. H. Chiu**, R. B. Chen, M. F. Lin, "Influence of modulated electric fields on the magneto-optical absorption spectra of graphene", **Saratov Fall Meeting** (September 2011).
4. **Y. H. Chiu**, "Magneto-optical excitations of graphene under periodic magnetic fields", **Workshop on Graphene, DIPC** (August 29 ~ September 2, 2011).
5. Y. C. Ou, R. B. Chen, **Y. H. Chiu**, M. F. Lin, "Magnetoelectronic structure of monolayer graphene under composite magnetic fields", **15th Conference on Modulated Semiconductor Structures** (July, 2011).
6. Y. C. Ou, **Y. H. Chiu**, R. B. Chen, M. F. Lin", Optical absorption spectrum of monolayer graphene in an external composite field", **The 19th International Conference on Electronic Properties of**

Two-Dimensional Systems (July, 2011).

7. Y. C. Ou, **Y. H. Chiu**, and M. F. Lin, "Electronic properties of monolayer graphene in the presence of the uniform magnetic and modulated electric field", **Annual Meeting of the Physical Society of ROC** (2011).
8. **Y. H. Chiu**, Y. H. Ho, and M. F. Lin, "Optical transitions between Landau levels: AA-stacked bilayer graphene", **Annual Meeting of the Physical Society of ROC** (January, 2011).
9. **Y. H. Chiu**, Y. H. Ho, and M. F. Lin, "Magneto-optical absorption spectra of AA- and AB-stacked bilayer graphenes", **Symposium on General Aspects of Graphene, CNT & Ultrafast Phenomena of Nanomaterials** (November, 2010).
10. Y. C. Ou, R. B. Chen, C. H. Ho, **Y. H. Chiu**, and M. F. Lin, "Optical excitation of monolayer graphene in the coexistence of a uniform and a periodic magnetic field", **The 21st European Conference on Diamond, Diamond-Like Materials, Carbon Nanotubes, and Nitrides** (September, 2010).
11. Y. H. Ho, **Y. H. Chiu**, J. Wang, D. H. Lin, and M. F. Lin, "Magneto-optical properties of monolayer and bilayer graphenes", **The 2nd International Symposium on Advanced Plasma Science and Its Applications for Nitrides and Nanomaterials** (March, 2010).
12. S. J. Tsai, **Y. H. Chiu**, M. F. Lin, "Band structures of Bernal graphenes modulated by electric fields", **Annual Meeting of the Physical Society of ROC** (February, 2010).
13. C. H. Ho, Y. H. Ho, **Y. H. Chiu**, Y. N. Chen, and M. F. Lin,

"Characterization of low-energy Landau levels in rhombohedral trilayer graphene", **Annual Meeting of the Physical Society of ROC** (February, 2010).

14. **Y. H. Chiu** and M. F. Lin, "Effects of modulated magnetic fields on graphene monolayer", **The 1st Workshop of High-Performance Computing on Nanoscale Material Research** (2009, August).
15. **Y. H. Chiu**, Y. Y. Liao, and M. F. Lin, "Optical absorption spectra of monolayer graphene in spatially modulated electric potentials", **The 14th International Conference on the Modulated Semiconductor Structures** (July, 2009).
16. S. J. Tsai, J. H. Ho, **Y. H. Chiu**, and M. F. Lin, "Band structures of Bernal graphenes modulated by electric fields", **The 14th International Conference on the Modulated Semiconductor Structures** (July, 2009).
17. Y. H. Ho, **Y. H. Chiu**, J. M. Lu, and M. F. Lin, "Low-energy electronic structures of nanotube-graphene hybrid carbon systems", **The 18th International Conference on the Electronic Properties of Two-Dimensional Systems** (July, 2009).
18. J. H. Ho, S. J. Tsai, **Y. H. Chiu**, and M. F. Lin, "Transition of graphene under one-dimensional electric potentials to semimetallic state", **The 18th International Conference on the Electronic Properties of Two-Dimensional Systems** (July, 2009).
19. **Y. H. Chiu**, Y. C. Ou, Y. Y. Liao, and M. F. Lin, "Magneto-optical absorption spectra of monolayer graphene in a spatially modulated magnetic field", **The 20th European Conference on Diamond, Diamond-Like Materials, Carbon Nanotube, and Nitrides**

(September, 2009).

20. Y. C. Ou, **Y. H. Chiu**, and M. F. Lin, "Electronic properties of monolayer graphene in the presence of the uniform magnetic and modulated electric fields", **The 20th European Conference on Diamond, Diamond-Like Materials, Carbon Nanotube, and Nitrides** (September, 2009).
21. Y. H. Ho, **Y. H. Chiu**, and M. F. Lin, "Low-frequency magneto-optical spectra of bilayer Bernal graphene", **Bulletin of American Physical Society**, Vol. **54**, 792 (2009).
22. **Y. H. Chiu** and M. F. Lin, "Electronic and optical properties of graphene monolayer in a spatially modulated magnetic field", **Summer Workshop on Nanoscale Materials** (2008, August).
23. **Y. H. Chiu**, Y. H. Lai, J. H. Ho, D. S. Chuu, and M. F. Lin, "Electronic structure of a 2D monolayer graphene in a spatially modulated magnetic field", **Annual Meeting of the Physical Society of ROC** (2008).
24. **Y. H. Chiu**, J. H. Ho, C. P. Chang, M. F. Lin, and D. S. Chuu, "Magneto-absorption spectra of a monolayer graphene in a spatially modulated magnetic field", **The 2nd Conference on New Diamond and Nano Carbons** (May, 2008).
25. S. J. Tsai, J. H. Ho, **Y. H. Chiu***, and M. F. Lin, "Electronic properties for graphene in a modulated electric potential", **The 2nd Conference on New Diamond and Nano Carbons** (May, 2008).
26. **Y. H. Chiu**, Y. H. Lai, J. H. Ho, M. F. Lin, and D. S. Chuu, "Magnetic energy bands of a 2D graphite layer in the spatially modulated magnetic field", **The 13th International Conference on**

the Modulated Semiconductor Structures (2007).

27. **Y. H. Chiu**, Y. H. Lai, J. H. Ho, M. F. Lin, and D. S. Chuu, "Magnetic energy bands of a 2D graphite layer in the spatially modulated magnetic field", **The 13th International Conference on the Modulated Semiconductor Structures** (2007).
28. J. H. Ho, Y. H. Lai, **Y. H. Chiu**, S. J. Tsai, and M. F. Lin, "Landau levels of graphene", **The 17th International Conference on the Electronic Properties of Two-Dimensional Systems** (2007).

【專書及專刊】

● 專書章節

1. **Y. H. Chiu**, Y. C. Ou, M. F. Lin: "Optical Properties of Graphene in External Fields", contribution to a collective work entitled **Graphene Science Handbook: Electrical and Optical Properties**, invited by CRC Press (Taylor & Francis Group), Chapter 10 (2014), will be published soon.
2. 邱裕煌："Essential College Physics, Andrew Rex and Richard Wolfson" 中文翻譯本，歐亞書局(2012)。

● 專刊

1. 邱裕煌，"石墨烯在外場下的電子性質"，物理雙月刊，33(2), 183 (2011)。
2. 邱裕煌、林鶴南，"磁力顯微術原理及其在磁性薄膜檢測的應用"，科儀新知，19(3), 41 (1997)。