

# VITA

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1992.9 - 1996.6 清華大學 原子科學系物理組 學士

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### 經 歷：

1. 1998.8 - 2000.5 於海軍陸戰隊服役
2. 2000.5 - 2001.8 於清華大學電子工程研究所任職研究助理
3. 2005 年獲邀擔任 *IEEE Photonics Technology Letters* 國際期刊之論文審查者 (Reviewer)
4. 2005 年獲美國杜克大學 Fitzpatrick 中心研討會學生論文榮譽獎
5. 2006 年獲邀擔任 *OSA Optics Express* 國際期刊之論文審查者 (Reviewer)



# Publication List

## International journals (SCI journal paper)

1. N. K. Chen, S. Chi, and S. M. Tseng, "Narrow-band channel-dropping filter based on side-polished fiber with long interaction length," *Jpn. J. Appl. Phys.* **43**, L475-L477 (2004).
2. N. K. Chen, S. Chi, and S. M. Tseng, "Wideband tunable fiber short-pass filter based on side-polished fiber with dispersive polymer overlay," *Opt. Lett.* **29**, 2219-2221 (2004).
3. N. K. Chen, S. Chi, and S. M. Tseng, "An efficient local fundamental-mode cutoff for thermo-optic tunable  $\text{Er}^{3+}$ -doped fiber ring laser," *Opt. Express* **13**, 7250-7255 (2005).
4. N. K. Chen, L. Zhang, K. C. Hsu, L. Hu, S. Chi, Y. Lai, S. M. Tseng, and J. T. Shy, "CW-pumped evanescent amplification based on side-polished fiber with heavily  $\text{Er}^{3+}$ -doped glass overlay," accepted by *Jpn. J. Appl. Phys.* (2006).
5. N. K. Chen and S. Chi, "Influence of a holey cladding structure on spectral characteristics of side-polished endlessly single-mode photonic crystal fibers," accepted by *Opt. Lett.* (2006).
6. N. K. Chen, K. C. Hsu, S. Chi, and Y. Lai, "Tunable  $\text{Er}^{3+}$ -doped fiber amplifiers covering S- and C + L-bands over 1490 ~ 1610 nm based on discrete fundamental-mode cutoff filters," revised to *Opt. Lett.* (2006).

## International conferences

7. N. K. Chen, S. Chi, and S. M. Tseng, "Fused-polished fiber couplers," Proceedings of *OECC 2003* conference, Shanghai, Oct. 13-16, 2003 (I): 299-300, 2003.
8. N. K. Chen, S. Chi, and S. M. Tseng, "Low loss fiber demultiplexers," Proceedings of *OECC 2003* conference, Shanghai, Oct. 13-16, 2003 (I): 127-128, 2003.
9. N. K. Chen, S. Chi, and S. M. Tseng, "A widely tunable side-polished fiber filter based on dispersive evanescent wave tunneling," Proceedings of *LEOS 2004* conference, Puerto Rico, 302-303, Nov. 7-11, 2004.

10. **N. K. Chen** and S. Chi, "Evanescent wave photonic crystal fiber tunable filter using dispersive optical polymers," *OFC 2005* conference, Anaheim, USA, Mar. 6-11, 2005. OWD3.
11. **N. K. Chen** and S. Chi, "Evanescent wave photonic crystal fiber tunable filter based on fundamental-mode cutoff," *5<sup>th</sup> Annual Fitzpatrick Center Symposium, Workshop on Global Perspectives in Frontiers of Photonics, Computational Imaging, Biophotonics and Nanophotonics*, Duke University, Durham, USA, May 18-20, 2005. (*Honorable Mention*)
12. **N. K. Chen**, S. Chi, L. Zhang, L. Hu, K. P. Chuang, Y. Lai, S. M. Tseng, and J. T. Shy, "CW-pumped evanescent amplification at 1.55  $\mu\text{m}$  wavelength using highly  $\text{Er}^{3+}$ -doped glass over side-polished fiber," *CLEO 2005* conference, Baltimore, USA, May 22-27, 2005. JWB61.
13. **N. K. Chen**, S. Chi, and S. M. Tseng, "High-efficiency tunable  $\text{Er}^{3+}$ -doped fiber ring laser based on fiber fundamental-mode cutoff," Proceedings of *OECC 2005* conference, Seoul, Korea, Jul. 4-8, 2005. 608-609, 2005.
14. G. Dyankov, **N. K. Chen**, and S. Chi, "All-fiber optic parametric oscillator based on second order nonlinearity," *CLEO-PR 2005*, Tokyo, Japan, Jul. 11-15, 2005. CWAB3-P40.
15. **N. K. Chen** and S. Chi, "Spectral characteristics of side-polished endlessly single-mode photonic crystal fiber: waveguide dispersion," *OFC 2006* conference, Anaheim, USA, Mar. 5-10, 2006. OWI5.
16. **N. K. Chen**, K. C. Hsu, H. J. Chang, S. Chi, and Y. Lai, "Tunable  $\text{Er}^{3+}/\text{Yb}^{3+}$  codoped fiber amplifiers covering S- and C-Bands (1460 ~ 1580 nm) based on discrete fundamental-mode cutoff," *OFC 2006* conference, Anaheim, USA, Mar. 5-10, 2006. OThJ5.
17. **N. K. Chen**, K. C. Hsu, K. F. Hong, S. Chi, and Y. Lai, "High-cutoff-efficiency tunable short-pass filter over 400 nm (1250 ~ 1650 nm) wavelength range," *OECC 2006* conference, Kaohsiung, Taiwan, Jul. 3-7, 2006. 6D4-2.
18. **N. K. Chen**, S. Chi, S. M. Tseng, and Y. Lai, "Wavelength-tunable fiber codirectional coupler filter based on asymmetric side-polished fiber coupler with local dispersive interlayer," submitted to *LEOS 2006* conference.
19. **N. K. Chen**, D. Y. Hsu, and S. Chi, "High tuning efficiency laser-ablated fiber long-period gratings using optical polymer overlay," submitted to *LEOS 2006* conference.

20. N. K. Chen, K. C. Hsu, S. Chi, and Y. Lai, "Tunable Er<sup>3+</sup>-doped fiber amplifiers covering S- and C + L-bands (1490 ~ 1610 nm) using discrete all-fiber ASE suppressing filters," submitted to *LEOS 2006* conference.

### Domestic conferences

21. N. K. Chen, S. Chi, and S. M. Tseng, "Evanescent-field fiber combiners for 1310/1550 and 1480/1550-nm wavelengths," *OPT'02*, Taipei, (II): 497-499, Dec. 12-13, 2002.
22. N. K. Chen, S. Chi, L. Zhang, L. Hu, S. M. Tseng, and J. T. Shy, "CW-pumped evanescent wave fiber amplifier at 1.55  $\mu\text{m}$  wavelength using highly Er<sup>3+</sup>-doped fluorophosphate glass," *OPT'04* Chungli, Dec. 18-19, 2004.
23. N. K. Chen and S. Chi, "Widely tunable L-band Er<sup>3+</sup>-doped fiber ring laser by incorporating a novel side-polished fiber short-pass filter into ring resonator," *OPT'04* Chungli, Dec. 18-19, 2004.
24. D. Y. Hsu, N. K. Chen, S. Chi, S. Y. Shaw, and J. T. Shy, "Fabrication of long period fiber gratings in silicate glass fiber by CO<sub>2</sub> laser irradiation," *OPT'04* Chungli, Dec. 18-19, 2004.
25. D. Y. Hsu, N. K. Chen, S. Chi, "Gain-suppressed erbium-doped fiber amplifier using long period grating in non-photosensitive fibers," *OPT'04* Chungli, Dec. 18-19, 2004.

### Patents

26. S. M. Tseng and N. K. Chen, "Compact fiber coupler and method of manufacturing the same," (ROC patent no. 493090 & USA patent no. 6,665,473).
27. S. M. Tseng, P. H. Chen, H. C. Lai, and N. K. Chen, "All-fiber add/drop filter and method of manufacturing the same," (ROC patent no. 544533).
28. S. M. Tseng and N. K. Chen, "Variable optical fiber attenuator and method of manufacturing the same," (ROC patent no. 558657).
29. S. M. Tseng and N. K. Chen, "Method for manufacturing all-fiber device," (ROC patent no. 581894).

30. S. Chi, S. M. Tseng, and **N. K. Chen**, “Manufacturing method and apparatus of fiber coupler,” (ROC patent no. 240096, USA patent no. 6,994,481, and PRC patent pending).
31. **N. K. Chen**, S. Chi, S. M. Tseng, and F. Y. Tsai, “Fiber-optic tunable filter and intensity modulator,” (ROC patent no. 588162 & USA patent no. 7,024,072).
32. **N. K. Chen**, S. Chi, S. M. Tseng, and Y. Lai, “Evanescent-field optical amplifiers and lasers,” (ROC patent no. 231076 and USA patents (1) & (2) pending).
33. S. M. Tseng and **N. K. Chen**, “Method for coupling planar lightwave circuit and optical fiber,” (ROC & USA patents pending).
34. S. Chi, **N. K. Chen**, and J. T. Shy, “Solar-pumped active device,” (ROC patent no. 239658 and USA patents (1) & (2) pending).
35. S. Chi and **N. K. Chen**, “Laser-ablated fiber devices and method of manufacturing the same,” (ROC, USA, PRC, Korea, Japan patents pending).
36. S. Chi, **N. K. Chen**, and S. M. Tseng, “Widely tunable fiber filter,” (ROC and USA patents pending).
37. S. Chi and **N. K. Chen**, “Tunable fiber amplifier and laser,” (ROC, USA and PRC patents pending).
38. S. Chi and **N. K. Chen**, “Tunable fiber amplifiers and lasers based on discrete fundamental-mode cutoff,” (ROC, PRC and USA patents pending)