

Hung-Hsiang Cheng

1. Huang, BJ (Huang, Bo-Jun); Lin, JH (Lin, Jun-Han); Cheng, HH (Cheng, H.H.); Chang, GE (Chang, Guo-En). "GeSn resonant-cavity-enhanced photodetectors on silicon-on-insulator platforms", OPTICS LETTERS 43, 1215 (2018).
2. Xie, D (Xie, Deng); Qiu, ZR (Qiu, Zhi Ren); Wan, LY (Wan, Lingyu); Talwar, DN (Talwar, Devki N.); Cheng, HH (Cheng, Hung-Hsiang); Liu, SY (Liu, Shiyuan); Mei, T (Mei, Ting); Feng, ZC (Feng, Zhe Chuan). "Spectroscopic ellipsometry and X-ray diffraction studies on Si_{1-x}Ge_x/Si epilayers and superlattices", APPLIED SURFACE SCIENCE 421, 748-754 (2017).
3. Chang, C (Chang, Chiao); Chang, TW (Chang, Tai-Wei); Li, H (Li, Hui); Cheng, HH (Cheng, Hung Hsiang); Soref, R (Soref, Richard); Sun, G (Sun, Greg); Hendrickson, JR (Hendrickson, Joshua R.). "Room-temperature 2- μ m GeSn P-I-N homojunction light-emitting diode for inplane coupling to group-IV waveguides", APPLIED PHYSICS LETTERS 111, 141105 (2017).
4. Jheng, LS (Jheng, Li Sian); Li, H (Li, Hui); Chang, C (Chang, Chiao); Cheng, HH (Cheng, Hung Hsiang); Li, LC (Li, Liang Chen). "Comparative investigation of Schottky barrier height of Ni/n-type Ge and Ni/n-type GeSn", AIP ADVANCES 7, 095324 (2017).
5. **Cheng, YT (Cheng, Yi-Ting); Lin, YH (Lin, Yen-Hsun); Chen, WS (Chen, Wan-Sin); Lin, KY (Lin, Keng-Yung); Wan, HW (Wan, Hsien-Wen); Cheng, CP (Cheng, Chiu-Ping); Cheng, HH (Cheng, Hung-Hsiang); Kwo, J (Kwo, Jueinai); Hong, M (Hong, Mingwei); Pi, TW (Pi, Tun-Wen). "Surface electronic structure of epi germanium (001)-2 x 1", APPLIED PHYSICS EXPRESS 10, 075701 (2017).**
6. Huang, YH (Huang, Yu-Hui); Chang, GE (Chang, Guo-En); Li, H (Li, Hui); Cheng, HH (Cheng, H.H.). "Sn-based waveguide p-i-n photodetector with strained GeSn/Ge multiple-quantum-well active layer", OPTICS LETTERS 42, 1652 (2017).
7. Li, H (Li, Hui); Chang, C (Chang, Chiao); Cheng, HH (Cheng, Hung-Hsiang). "X-ray diffraction simulation of GeSn/Ge multi-quantum wells with kinematic approach", J. CRYSTAL GROWTH 468, 272-274 (2017).
8. Chang, C (Chang, Chiao); Li, H (Li, Hui); Ku, CT (Ku, Chien-Te); Yang, SG (Yang, Shih-Guo); Cheng, HH (Cheng, Hung Hsiang); Hendrickson, J (Hendrickson, Joshua); Soref, RA (Soref, Richard A.); Sun, G (Sun, Greg). "Ge_{0.975}Sn_{0.025} 320 x 256 imager chip for 1.6-1.9 μ m infrared vision", APPLIED OPTICS 55, 10170-10173 (2016).
9. Li, H (Li, H.); Chang, C (Chang, C.); Cheng, HH (Cheng, H.H.); Sun, G (Sun, G.); Soref, RA (Soref, R.A.). "Disorder-induced enhancement of indirect absorption in a GeSn photodetector grown by molecular beam epitaxy", APPLIED PHYSICS LETTERS 108 (191111) (2016).

10. Chang, C (Chang, C.); Li, H (Li, H.); Huang, SH (Huang, S.H.); Cheng, HH (Cheng, H.H.); Sun, G (Sun, G.); Soref, RA (Soref, R.A.). “Sn-based Ge/Ge_{0.975}Sn_{0.025}/Ge p-i-n photodetector operated with back-side illumination”, APPLIED PHYSICS LETTERS 108, 151101 (2016).
11. Chang, C (Chang, Chiao); Li, H (Li, Hui); Huang, SH (Huang, Ssu-Hsuan); Lin, LC (Lin, Li-Chien); Cheng, HH (Cheng, Hung-Hsiang). “Temperature-dependent electroluminescence from GeSn heterojunction light-emitting diode on Si substrate”, JAPANESE J. APPLIED PHYSICS 55, 04EH03 (2016).
12. Fedorchenk, AI (Fedorchenk, Alexander I.); Cheng, HH (Cheng, Henry H.); Wang, WC (Wang, Wei-Chih). “On the Potential Application of the Wrinkled SiGe/SiGe Nanofilms”, WORLD J. MECHANICS 6, 19-23 (2016).
13. Li, H (Li, H.); Chen, TP (Chen, T. P.); Chang, C (Chang, C.); Cheng, HH (Cheng, H. H.); Chang, GE (Chang, Guo-En); Hung, KM (Hung, K. M.). “Diode-like electrical characteristics of SiGe wrinkled heterostructure operating under both forward and reverse bias”, APPLIED PHYSICS LETTERS 108, 063106 (2016).
14. Chang, C (Chang, C.); Li, H (Li, H.); Chen, TP (Chen, T.P.); Tseng, WK (Tseng, W.K.); Cheng, HH (Cheng, H.H.); Ko, CT (Ko, C.T.); Hsieh, CY (Hsieh, C.Y.); Chen, MJ (Chen, M.J.); Sun, G (Sun, G.); “The strain dependence of Ge_(1-x)Sn_(x) (x=0.083) Raman shift”, THIN SOLID FILMS 593, 40 (2015).
15. Ping, T (Ping, T.); Lei, H (Lei, H.); Cheng, HH (Cheng, H.H.); Wang, HH (Wang, H.H.); Wu, XS (Wu, X.S.). “Epitaxial growth of Ge_{1-x}Sn_x films with x up to 0.14 grown on Ge (001) at low temperature”, CHINESE PHYSICS B, 23, 088112 (2014).
16. Peng, YH (Peng, Yu-Hsiang); Cheng, HH (Cheng, H. H.); Mashanov, VI (Mashanov, Vladimir I.); Chang, GE (Chang, Guo-En). “GeSn p-i-n waveguide photodetectors on silicon substrates”, APPLIED PHYSICS LETTERS 105 231109 (2014).
17. Soo, YL (Soo, Y. L.); Wu, TS (Wu, T. S.); Chen, YC (Chen, Y. C.); Shiu, YF (Shiu, Y. F.); Peng, HJ (Peng, H. J.); Tsai, YW (Tsai, Y. W.); Liao, PY (Liao, P. Y.); Zheng, YZ (Zheng, Y. Z.); Chang, SL (Chang, S. L.); Chan, TS (Chan, T. S.); Lee, JF (Lee, J. F.); Sterbinsky, GE (Sterbinsky, G. E.); Li, H (Li, H.); Cheng, HH (Cheng, H. H.). “Substitutional incorporation of Sn in compressively strained thin films of heavily-alloyed Ge_{1-x}Sn_x/Ge semiconductor probed by x-ray absorption and diffraction methods”, SEMICONDUCTOR SCIENCE AND TECHNOLOGY 29, 115008 (2014).
- 18. Tao, P (Tao Ping); Huang, L (Huang Lei); Cheng, HH (Cheng, H. H.); Wang, HH (Wang Huan-Hua); Wu, XS (Wu Xiao-Shan). “Epitaxial growth of Ge_{1-x}Sn_x films with x up to 0.14 grown on Ge (001) at low temperature”, CHINESE PHYSICS B 23, 088112 (2014).**

19. Li, H (Li, H.); Zhang, C (Zhang, C.); Chen, TP (Chen, T. P.); Cheng, HH (Cheng, H. H.). “Characteristics of Sn segregation in Ge/GeSn heterostructures”, APPLIED PHYSICS LETTERS 105, 151906 (2014).
20. Li, H (Li, H.); Cheng, HH (Cheng, H. H.); Lee, LC (Lee, L. C.); Lee, CP (Lee, C. P.); Su, LH (Su, L. H.); Suen, YW (Suen, Y. W.). “Electrical characteristics of Ni Ohmic contact on n-type GeSn”, APPLIED PHYSICS LETTERS 104, 241904 (2014).
21. Chen, JZ (Chen, Jia-Zhi); Li, H (Li, H.); Cheng, HH (Cheng, H. H.); Chang, GE (Chang, Guo-En). “Structural and optical characteristics of Ge_{1-x}Sn_x/Ge superlattices grown on Ge-buffered Si(001) wafers”, OPTICAL MATERIALS EXPRESS 4, 1178-1185 (2014).
22. Nikiforov, AI (Nikiforov, A. I.); Mashanov, VI (Mashanov, V. I.); Timofeev, VA (Timofeev, V. A.); Pchelyakov, OP (Pchelyakov, O. P.); Cheng, HH (Cheng, H. -H.). “Reflection high energy electron diffraction studies on SixSnyGe_{1-x-y} on Si(100) molecular beam epitaxial growth”, THIN SOLID FILMS 557, 188-191 930 (2014).