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### Publication List

#### Journal Papers

- [26] **Y.-J. Chang\***, K.-H. Shih, and K. Muthuramalingam, "Aluminum-based concurrent photonic and plasmonic energy conversion driven by quasi-localized plasmon resonance," *Opt. Express*, vol. 28, pp. 37669-37685, Dec. 2020.
- [25] K.-H. Shih and **Y.-J. Chang\***, "Internal photoemission for photovoltaic using p-type Schottky barrier: Band structure dependence and theoretical efficiency limits," *J. Appl. Phys.*, vol. 123, p. 023107, Jan. 2018.
- [24] **Y.-J. Chang\*** and R.-W. Feng, "Hybrid plasmonic mode converter: theoretical formulation and design with a graphical approach" *Appl. Opt.*, vol. 56, pp. 5501-5510, Jul. 2017.
- [23] **Y.-J. Chang\*** and R.-W. Feng, "Embedded Silicon-Strip-to-Hybrid-Plasmonic Waveguide Polarization Mode Converter" *IEEE Photon. Technol. Lett.*, vol. 29, pp. 759-762, May 2017.
- [22] **Y.-J. Chang\*** and K.-H. Shih, "Solar energy conversion via internal photoemission in aluminum, copper, and silver: Band structure effects and theoretical efficiency estimates" *J. Appl. Phys.* **119**, 183101, 2016.
- [21] **Y.-J. Chang\*** and T.-H. Yu, "Photonic-quasi-TE-to-hybrid-plasmonic-TM polarization mode converter," *IEEE/OSA J. Lightwave Technol.*, vol. 33, pp. 4261-4267, Oct. 15, 2015.
- [20] **Y.-J. Chang\***, "Suppressing lossy-film-induced angular mismatches between reflectance and transmittance extrema: optimum optical designs of interlayers and AR coating for maximum transmittance into active layers of CIGS solar cells: erratum" *Opt. Express*, vol. 23, pp. A947-A948, Jul. 2015.
- [19] **Y.-J. Chang\***, "On the lasing-like transmission via radiation-mode-enabled TE resonant optical tunneling in asymmetric, passive, layered media with metal" *Opt. Express*, vol. 22, pp. 28941-28953, Nov. 2014.
- [18] **Y.-J. Chang\***, "Suppressing lossy-film-induced angular mismatches between reflectance and transmittance extrema: optimum optical designs of interlayers and AR coating for maximum transmittance into active layers of CIGS solar cells" *Opt. Express*, vol. 22, pp. A167-A178, Jan. 2014.
- [17] **Y.-J. Chang\*** and C.-S. Lai, "Toward maximum transmittance into absorption layers in solar cells: Investigation of lossy-film-induced mismatches between reflectance and transmittance extrema" *Opt. Lett.*, vol. 38, pp. 3257-3260, Sept. 2013.
- [16] **Y.-J. Chang\*** and C.-Y. Chen, "Ultracompact, narrowband three-dimensional plasmonic waveguide Bragg grating in metal/multi-insulator/metal configuration," *Appl. Opt.*, vol. 52, pp. 889-896, Feb. 2013.
- [15] **Y.-J. Chang\*** and W.-L. Li, "Directional-coupler-based polarization splitting in asymmetric metal/multi-insulator configuration for optical nanocircuitry," *IEEE Photon. Technol. Lett.*, vol. 24, pp. 458-460, Mar. 2012.
- [14] **Y.-J. Chang\*** and Y.-T. Chen, "Broadband omnidirectional antireflection coatings for metal-backed solar cells optimized using simulated annealing algorithm incorporated with solar spectrum," *Opt.*

*Express*, vol. 19, pp. A875-A887, Jul. 2011.

- [13] **Y.-J. Chang\*** and Y.-C. Liu, "Polarization-insensitive subwavelength sharp bends in asymmetric metal/multi-insulator configuration," *Opt. Express*, vol. 19, pp. 3063-3076, Feb. 2011.
- [12] **Y.-J. Chang\*** and Y.-C. Liu, "A plasmonic-mode-assisted sharp waveguide bend for silicon optical nanocircuitry," *IEEE Photon. Technol. Lett.*, vol. 23, pp. 121-123, Jan. 2011.
- [11] **Y.-J. Chang\***, "Design and analysis of metal/multi-insulator/metal waveguide plasmonic Bragg grating," *Opt. Express*, vol. 18, pp. 13258-13270, Jun. 2010.
- [10] **Y.-J. Chang\*** and G.-Y. Lo, "A narrow band metal/multi-insulator/metal waveguide plasmonic Bragg grating," *IEEE Photon. Technol. Lett.*, vol. 22, pp. 634-636, May 2010.
- [9] **Y.-J. Chang\*** and T. K. Gaylord, "Birefringence characteristics of nanoscale dielectrics with cubic and tetragonal lattices," *Opt. Express*, vol. 18, pp. 809-821, Jan. 2010.
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- [2] G.-K. Chang\*, D. Guidotti, F. Liu, **Y.-J. Chang**, Z. Huang, V. Sundaram, D. Balaraman, S. Hegde, R. Tummala, "Chip-to-chip optoelectronics SOP on organic boards or packages," *IEEE Trans. Adv. Packag.* vol. 23, pp. 386-397, May 2004.
- [1] R. B. Hwang\*, **Y.-J. Chang**, and M.-I. Lai, "A low-cost electrical beam tilting base station antennas for wireless communication system," *IEEE Trans. Antennas Propag.*, vol. 52, pp. 115-121, Jan. 2004.

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**International Conference Papers**

- [23] K.-Y. Lee, **Y.-J. Chang\*** and J.-H. Chen, "A low noise 0.18- $\mu\text{m}$  standard-CMOS-based silicon avalanche photodiode with a T-shaped polysilicon grating," 2020 *Opto-Electronics and Communications Conference (OECC)*, Taipei, 2020, pp. 1-3, doi: 10.1109/OECC48412.2020.9273624.
- [22] **Y.-J. Chang\*** and Y.-H. Chen, "Optical power amplification via TE resonant optical tunneling in asymmetric, metal-dielectric, single barrier potential system," presented in *CLEO Pacific Rim*, Hong Kong, Jul. 29 – Aug. 3, 2018, p. W3A.11.
- [21] **Y.-J. Chang\***, "Birefringence characteristics of nanoscale dielectrics with cubic and tetragonal lattices" invited talk, *BIT's 2nd World Congress of Smart Materials*, Singapore, Mar. 03-06, 2016.
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