

## Publications:

1. **N.Sarigul**, M.Surucu, C. Reft, Z. Yegingil, B. Aydogan "Examination Of General Cavity Theory For Magnesium And Titanium Doped Lithium Fluoride (TLD-100) Of Varying Thicknesses In Bone And Lung", *Radiation Measurement*, 94, 1-7, 2016. DOI:10.1016/j.radmeas.2016.08.005.
2. *N. Nur, Z. Yeğingil, M. Topaksu, K. Kurt, T. Doğan, N. Sarigül, M. Yüksel, V. Altunal, A. Özdemir, V. Güçkan, I. Günay*, "[Study of thermoluminescence response of purple to violet amethyst quartz from Balıkesir, Turkey](#)", *Nuclear Instruments and Methods in Physics Research Section B Beam Interactions with Materials and Atoms*, p 358, DOI: 10.1016/j.nimb.2015.05.011.
3. Tansel, T., M. Hostut, S. Elagoz, A. Kilic, Y. Ergun, and A. Aydinli. "Electrical performance of InAs/AlSb/GaSb superlattice photodetectors." *Superlattices and Microstructures* 91 (2016): 1-7.
4. Salihoglu, Omer, T. Tansel, M. Hostut, Y. Ergun, and A. Aydinli. "Gibbs free energy assisted passivation layers." In *SPIE Defense+ Security*, pp. 98190R-98190R. International Society for Optics and Photonics, 2016.
5. Priyam Das, Mehmet Emre Tasgin, Ozgur E. Mustecaplioglu, "[Collectively induced many-vortices topology via rotatory Dicke quantum phase transition](#)", *New J. Phys.* **18**, 093022 (2016).
6. M. E. Tasgin, I. Salakhutdinov, D. Kendziora, M. K. Abak, D. Turkpence, L. Piantanida, L. Fruk, M. Lazzarino, Alpan Bek, "[Fluorescence Excitation by Enhanced Plasmon Upconversion under Continuous Wave Illumination](#)", *Photonics and Nanostructures - Fundamentals and Applications* **21**, 32 (2016).
7. Shailendra K. Singh, M. Kurtulus Abak, and Mehmet Emre Tasgin, "[Enhancement of Four-Wave Mixing via interference of multiple plasmonic conversion paths](#)", *Phys. Rev. B* **93**, 035410 (2016).
8. Wenchao Ge, Mehmet Emre Tasgin\*, M. Suhail Zubairy, "[Conservation relation of nonclassicality and entanglement for Gaussian states in a beam splitter](#)", *Phys. Rev. A* **92**, 052328 (2015). \* Corresponding author [arXiv:1506.04937](#)
9. Bilge Can Yildiz, Mehmet Emre Tasgin, Musa Kurtulus Abak, Sahin Coskun, Husnu Emrah Unalan, Alpan Bek, "[Enhanced Second Harmonic Generation from Coupled Asymmetric Plasmonic Metal Nanostructures](#)", *J.Opt.* **17**, 125005 (2015). [arXiv:1412.0238](#) (invited to *Journal of Optics* from arXiv)
10. D. Turkpence, Gursoy B. Akguc, Alpan Bek, M. E. Tasgin, "Engineering nonlinear response of nanomaterials using Fano resonances", *J. Opt.* **16**, 105009 (2014).
11. Hostut, M., M. Alyoruk, T. Tansel, A. Kilic, R. Turan, A. Aydinli, and Y. Ergun. "N-structure based on InAs/AlSb/GaSb superlattice photodetectors." *Superlattices and Microstructures* 79 (2015): 116-122.
12. T. Tansel, K. Kutluer, A. Muti, O. Salihoglu, A. Aydinli and R. Turan, "Understanding Noise Mechanisms in InAs/GaSb Superlattice Photodiodes", *Appl. Phys. Express.*, **6**, 032202 (2013)
13. T. Tansel, S.E. Rusen, and A.Rusen "Large scale surface area polarisation by the new designed corona polling method", *Review of Scientific Instruments* **84**, 015107 (2013)
14. O. Salihoglu, M. Hostut, T. Tansel K., Kutluer, A. Kilic, M. Alyoruk, C. Sevik, R. Turan, Y. Ergun, and A. Aydinli, "Electronic and optical properties of 4.2  $\mu\text{m}$  "N" structured superlattice MWIR photodetectors", *Infrared Phys. Technol.* **59**, 36-40 (2013)
15. M. E. Tasgin, "[Metal nanoparticle plasmons operating within quantum lifetime](#)", *Nanoscale* **5**, 8616 (2013). **pdf-file** doi: 10.1039/c3nr02270f
16. O. Salihoglu, A. Muti, K. Kutluer, T. Tansel, R. Turan, Y. Ergun, and A. Aydinli, "N" structure for type-II superlattice photodetectors", *App. Phys. Lett.* **101**, 073505 (2012)
17. O. Salihoglu, A. Muti, K. Kutluer, T. Tansel, R. Turan, and A. Aydinli, "Skin Like Self Assembled Monolayers on InAs/GaSb Superlattice Photodetectors", *J. Physi. D: Appl. Phys.* **45**, 365102 (2012)
18. O. Salihoglu, A. Muti, K. Kutluer, T., Tansel, R. Turan, C. Kocabas, and A. Aydinli, "Atomic Layer Deposited Al<sub>2</sub>O<sub>3</sub> Passivation of Type II InAs/GaSb Superlattice Photodetectors", *J. Appl. Phys.*, **111**, 074509 (2012)
19. T. Tansel, K. Kutluer, O. Salihoglu, A. Aydinli, B. Aslan, B. Arikan, Y. Ergun, U. Serincan, and R. Turan, "Effect of the Passivation Layer on the Noise Characteristics of Mid-Wave Infrared InAs/GaSb Superlattice Photodiodes", *IEEE: Photonics Technology Letters*, **24**, 9, (2012)
20. M. E. Tasgin, "[Testing the reliability of a velocity definition in dispersive medium](#)", *Physical Review A* **86**, 033833 (2012). **pdf-file** a presentation for-superluminal propagation.pdf doi: 10.1103/PhysRevA.86.033833
21. M.E. Taşgin, Ö.E. Müstecaplıođlu and Li You, "[Creation of a vortex in a Bose-Einstein condensate by superradiant scattering](#)", *Physical Review A* **84**, 063628 (2011). **pdf-file**

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23. S.K. Steinke, S. Singh, M.E. Taşgın, P. Meystre, K.C. Schwab, M. Vengalattore, “*Quantum measurement backaction from a BEC coupled to a mechanical oscillator*”, Physical Review A **84**, 023841 (2011). **pdf-file**  
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24. A.Taranovskyy, T. Tansel, and O.M. Magnussen, , “Quantitative Measurements of Adsorbate-Adsorbate Interactions at Solid-Liquid Interface”, *Phys. Rev. Lett.* **104**, 106101(2010)
25. T. Tansel, A. Taranovskyy, and O.M. Magnussen, , “In Situ Video-STM Studies of Adsorbate Dynamics at Electrochemical Interfaces”, *ChemPhysChem (special band)*, **11**, 7 (2010)
26. M.E. Taşgın, M.Ö. Oktel, L. You, and Ö.E. Müstecaplıoğlu, “*Quantum Entanglement via Superradiance of a Bose–Einstein Condensate*”, Laser Physics, **20**, 700 (2010). **pdf-file**  
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#### **Conference Proceedings:**

35. O. Salihoglu, A. Muti, K. Kutluer, T. Tansel, R. Turan, C. Kocabas and A. Aydinli “Passivation of type II InAs/GaSb superlattice photodetectors with atomic layer deposited Al<sub>2</sub>O<sub>3</sub>” *Proc. of SPIE*, Vol. 8353 83530Z-1 (2012).

36. Yuksel Erguna, Mustafa Hostut, Tunay Tansel, Abdullah Muti, Abidin Kilic, Rasit Turan, Atilla Aydinli “High quantum efficiency Type-II superlattice N-structure photodetectors with thin intrinsic layers” *Proc. of SPIE* Vol. 8704 870414-1 (2013).

37. T. Tansel, K. Kutluer, A. Muti, Ö. Salihoglu, A. Aydinli, and R. Turan “Low-frequency noise behavior at Reverse Bias Region in InAs/GaSb Superlattice Photodiodes on Mid-Wave Infrared” *Proc. of SPIE* Vol. 8704 87040Y-1 (2013).