

Curriculum vitae

Research Assistant Selman MUTLU

Contact information

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Degrees

2010-2013 MSc. Physics, Anadolu University, Eskisehir, Turkey;

Thesis Entitled “Investigation of the electronic transport mechanisms by using pulsed measurement techniques” [Supervised by Prof. Engin TIRAS]

2004-2008 BSc. Physics, Anadolu University, Eskisehir, Turkey

Employment

2014 – Research Assistant, Department of Physics, Istanbul University

Research Areas

Low dimensional semiconductors, nanostructures based on III-V compounds, electronic, transport properties in low dimensional semiconductors, optical characterization, design and characterization of optoelectronic devices

Computer skills

MS Office programs, Matcad, Origin, Labview, c++, Visual basic, Nextnano,

Publications

SCI Papers

Tıraş E., Çelik Ö., Mutlu S., Ardalı Ş., Lisesivdin S.B., Özbay E., "Temperature Dependent Energy Relaxation Time in AlGan/Aln/Gan Heterostructures", Superlattices and microstructures, no.51, pp.733-744, 2012

Khalil H., Mazzucato S., Ardalı Ş., Çelik Ö., Mutlu S., Tıraş E., Balkan N., "Temperature And Magnetic Field Effect On Oscillations Observed In Gainnas/Gaas Multiple Quantum Wells Structures", Materials science and engineering B-advanced functional solid-state materials, vol.177, pp.729-733, 2012

Sarcan F., Nutku F., Dönmez Ö., Kuruoğlu F., Mutlu S., Erol A., Yıldırım S., Arıkan M.Ç., “Quantum oscillations and interference effects in strained n and p type modulation doped GaInNAs GaAs quantum wells. Journal of Physics D: Applied Physics, 48(30), 305108, (Yayın No:1712419), 2015

Tıraş E., Mutlu S., Naci B. “Power Loss Mechanisms in Indium Rich InGaN Samples”. Journal of Electronic Materials, 45(2), 867-871. (Yayın No: 1712498), 2016

Nutku F., Çokduygulular E., Dönmez Ö., Sarcan F., Kuruoğlu F., Mutlu S., Yıldırım S., Erol A., “Effect of thermal annealing and nitrogen composition on quantum transport in alloy based modulation doped quantum well structures.” Journal of Alloys and Compounds, 695, 404-409.,(Yayın No: 3660864), 2017

Çetinkaya Ç., Mutlu S., Dönmez Ö., Erol A., “Characterization of emitted light from travelling Gunn domains in $Al_{0.08}Ga_{0.92}As$ alloy based Gunn devices”. Superlattices and Microstructures, 111, 744-753 (Yayın No: 3660867), 2017

1. Erol A., Mutlu S., Lisesivdin S.B., Tıraş E., “Hot electron transport based devices for optoelectronics.” International Conference on Condensed Matter and Materials Science (Özet Bildiri/Davetli Konusmacı), 2017
2. Mutlu S., Tıraş E. Erol A., Lisesivdin S.B., “Evolution of HELLISH devices: Colourful story of HELLISH Devices from IR to VIS light. The Physics of Optoelectronic Materials and Devices” (Özet Bildiri/Davetli Konusmacı), 2017
3. Çetinkaya Ç., Mutlu S., Dönmez Ö., Erol A., “Light Emission from $Al_{0.08}Ga_{0.92}As$ Gunn Device.” Nanophotonics and Micro/Nano Optics International Conference 2016 (Özet Bildiri/Poster), 2016
4. Çetinkaya Ç., Mutlu S., Dönmez Ö., Erol A., “Stimulated Light Emission from Gunn Domains in Fabry Perot $Al_{0.08}Ga_{0.92}As$ Gunn Device.” Türk Fizik Derneği 32. Uluslararası Fizik Kongresi (Özet Bildiri/Sözlü Sunum), 2016
5. Nutku F., Dönmez Ö., Çokduygulular E., Sarcan F., Kuruoğlu F., Mutlu S., Yıldırım S., Erol A., “INVESTIGATION OF ELECTRONIC TRANSPORT PROPERTIES IN $GaInNaS$ $GaAs$ QUANTUM WELL STRUCTURES.” Türk Fizik Derneği 32. Uluslararası Fizik Kongresi (Özet Bildiri/Sözlü Sunum), 2016
6. Mutlu S., Çokduygulular E., Çetinkaya Ç., Sarcan F., Dönmez Ö., Erol A. “ELECTRONIC TRANSPORT PROPERTIES OF P TYPE $GaInNaS$ $GaAs$ QUANTUM WELL STRUCTURES.” Türk Fizik Derneği 32. Uluslararası Fizik Kongresi (Özet Bildiri/Poster), 2016
7. Nutku F., Sarcan F., Dönmez Ö., Kuruoğlu F., Mutlu S., Erol A., Yıldırım S., Arıkan M.Ç., “Temperature and electric field dependence of localization in modulation doped $GaInNaS$ $GaAs$ quantum well structures.” 9th International Physics Conference of the Balkan Physical Union-BPU9, 161, 2015
8. Çetinkaya Ç., Mutlu S., Dönmez Ö., Erol A., “Investigation of Light Emission Based on Gunn Effect in n type $GaAs$.” 9th International Physics Conference of the Balkan Physical Union, 2015
9. Tıraş E., Mutlu S., Sükrü A., Naci B., “Power loss mechanisms in $InGaN$ GaN Samples.” European Materials Search Society, 2015

10. Ardalı Ş., Mutlu S., Tıraş E., Arslan E., Özbay E., “Hot Electron Energy Relaxation in $\text{Al}_{0.83}\text{In}_{0.17}\text{N}/\text{AlN}/\text{GaN}$ heterostructure.” Scientific final meeting of the COST-MP0805 action, 2013
11. Mutlu S., Ardalı Ş., Tıraş E., Naci B., “High Field Hot Electron Energy Relaxation in InGaN GaN Samples.” Scientific final meeting of the COST-MP0805 action. (Novel gain materials and devices based on III-V-N compounds), 2013