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PERSONAL

Date of Birth	31.05.1981
Place of Birth	Kadirli/OSMANIYE

EDUCATION

2009-2013	Middle East Technical University, Physics, Ph.D.
2005-2008	Middle East Technical University, Physics, M.S.
1999-2004	Boğaziçi University, Physics, B.S.

ACADEMIC POSITIONS

09/2017	Assoc. Prof. Dr., Department of Electrical and Electronics Engineering, Atılım University, Turkey
05/2013	Asst. Prof. Dr., Department of Electrical and Electronics Engineering, Atılım University, Turkey

RESEARCH INTERESTS

1	Binary, Ternary and Quaternary Semiconducting Compounds
2	Ellipsometry
3	Thermoluminescence
4	Thermally Stimulated Current
5	Thin Films
6	Optical Characterization of Semiconductors

PUBLICATIONS

1	M. Isik, N. Sarigul, N.M. Gasanly, Thermoluminescence characteristics of Bi ₁₂ SiO ₂₀ single crystals, <i>Journal of Luminescence</i> , 224, 117280, 2020
2	S. Delice, M. Isik, H.H. Gullu, M. Terlemozoglu, O. Bayrakli Surucu, N.M. Gasanly, M. Parlak, Temperature dependent band gap in SnS _{2x} Se _(2-2x) (x= 0.5) thin films, <i>Materials Science in Semiconductor Processing</i> , 114, 105083, 2020
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4	G. Surucu, M. Isik, A. Candan, X. Wang, H.H. Gullu, Investigation of structural, electronic, magnetic and lattice dynamical properties for XCoBi (X: Ti, Zr, Hf) Half-Heusler compounds, <i>Physica B: Condensed Matter</i> , 587, 412146, 2020

5	M. Isik, I. Gler, N.M. Gasanly, Thermoluminescence characterization of $(\text{Ga}_2\text{Se}_3)_{0.25}-$ $(\text{Ga}_2\text{S}_3)_{0.75}$ single crystal compounds, Materials Science in Semiconductor Processing, 108, 104875, 2020
6	H.H. Gullu, O. Surucu, M. Terlemezoglu, M. Isik, C. Ercelebi, N.M. Gasanly, M. Parlak, Temperature-dependent material characterization of CuZnSe_2 thin films, Thin Solid Films, 701, 137941, 2020
7	H.H. Gullu, M. Isik, N.M. Gasanly, M. Parlak, Temperature-dependent optical and electrical characterization of Cu-Ga-S thin films and their diode characteristics on n-Si, Optik, 208, 164485, 2020
8	M. Isik, H. Nasser, A. Guseinov, N.M. Gasanly, Optical constants and critical point energies of $(\text{AgInSe}_2)_{0.75}-$ $(\text{In}_2\text{Se}_3)_{0.25}$ single crystals, Journal of Materials Science: Materials in Electronics, 31, 4702-4707, 2020
9	M. Isik, N.M. Gasanly, Temperature-tuned band gap characteristics of InSe layered semiconductor single crystals, Materials Science in Semiconductor Processing, 107, 104862, 2020
10	M. Isik, S. Delice, N.M. Gasanly, N.H. Darvishov, V.E. Bagiev, Investigation of optical properties of $\text{Bi}_{12}\text{GeO}_{20}$ sillenite crystals by spectroscopic ellipsometry and Raman spectroscopy, Ceramics International, (In Press) 2020
11	H.H. Gullu, M. Isik, S. Delice, M. Parlak, N.M. Gasanly, Material and device properties of Si-based $\text{Cu}_{0.5}\text{Ag}_{0.5}\text{InSe}_2$ thin-film heterojunction diode, Journal of Materials Science: Materials in Electronics, 31, 1566-1573, 2020
12	G. Surucu, A. Gencer, A. Candan, H.H. Gullu, M. Isik, CaXH_3 (X = Mn, Fe, Co) perovskite-type hydrides for hydrogen storage applications, International Journal of Energy Research, 44, 2345-2354, 2020.
13	G. Surucu, A. Candan, A. Gencer, M. Isik, First-principle investigation for the hydrogen storage properties of NaXH_3 (X= Mn, Fe, Co) perovskite type hydrides, International Journal of Hydrogen Energy, 44, 30218-30225, 2019.
14	M. Isik, S. Delice, N.M. Gasanly, N.H. Darvishov, V.E. Bagiev, Temperature-dependent band gap characteristics of $\text{Bi}_{12}\text{SiO}_{20}$ single crystals, Journal of Applied Physics, 126, 245703, 2019
15	M. Isik, I. Guler, N.M. Gasanly, Study of vibrational modes in $(\text{Ga}_2\text{S}_3)_x-$ $(\text{Ga}_2\text{Se}_3)_{1-x}$ mixed crystals by Raman and infrared reflection measurements, Optical Materials, 95, 109228, 2019
16	M. Isik, N.M. Gasanly, The defect state of Yb-doped ZnO nanoparticles using thermoluminescence study, Materials Science in Semiconductor Processing, 100, 29-34, 2019
17	S. Delice, M. Isik, H.H. Gullu, M. Terlemezoglu, O.B. Surucu, M. Parlak, N.M. Gasanly, Temperature dependence of band gaps in sputtered SnSe thin films, 131, 22-26, 2019
18	S. Delice, M. Isik, N.M. Gasanly, Effect of heating rate on thermoluminescence characteristics of Y_2O_3 nanoparticles, Journal of Luminescence, 212, 233-237, 2019
19	S. Delice, M. Isik, N.M. Gasanly, Traps distribution in sol-gel synthesized ZnO nanoparticles, Materials Letters, 245, 103-105, 2019
20	M. Isik, H.H. Gullu, S. Delice, N.M. Gasanly, M. Parlak, Analysis of temperature-dependent transmittance spectra of $\text{Zn}_{0.5}\text{In}_{0.5}\text{Se}$ (ZIS) thin films, Journal of Materials Science-Materials in Electronics, 30, 9356-9362, 2019
21	M. Isik, N.M. Gasanly, L. Gasanova, Optical properties of $(\text{Ga}_2\text{Se}_3)_{0.75} -$ $(\text{Ga}_2\text{S}_3)_{0.25}$ single crystals by spectroscopic ellipsometry, Physica B-Condensed Matter, 560, 6-10, 2019
22	I. Guler, M. Isik, N.M. Gasanly, L.G. Gasanova, R.F. Babayeva, Structural and Optical Properties of Ga_2Se_3 Crystals by Spectroscopic Ellipsometry, Journal of Electronic Materials, 48, 2418-2422, 2019
23	M. Isik, H.H. Gullu, S. Delice, M. Parlak, N.M. Gasanly, Structural and temperature-dependent optical properties of thermally evaporated CdS thin films, Materials Science in Semiconductor Processing, 93, 148-152, 2019
24	S. Delice, M. Isik, N.M. Gasanly, Low temperature thermoluminescence of Gd_2O_3 nanoparticles using various heating rate and $T_{\text{max.}} - T_{\text{exc.}}$ methods, Results in Physics, 12, 1809-1813, 2019
25	M. Isik, N.M. Gasanly, Gd-doped ZnO nanoparticles: Synthesis, structural and thermoluminescence properties, Journal of Luminescence, 207, 220-225, 2019

26	M. Isik, H.H. Gullu, E. Coskun, N. Gasanly, Optical band gap and dispersion of optical constants of Cu-Ga-S thin films, <i>Optik</i> , 186, 147-154, 2019
27	S. Delice, M. Isik, N.M. Gasanly, Low temperature thermoluminescence behaviour of Y ₂ O ₃ nanoparticles, <i>Journal of Rare Earths</i> , 37, 19-23, 2019
28	M. Isik, N.M. Gasanly, L. Gasanova, Spectroscopic ellipsometry investigation of optical properties of β -Ga ₂ S ₃ single crystals, <i>Optical Materials</i> , 86, 95-99, 2018
29	H.H. Gullu, M. Isik, N.M. Gasanly, Structural and optical properties of thermally evaporated Cu-Ga-S (CGS) thin films, <i>Physica B-Condensed Matter</i> , 547, 92-96, 2018
30	M. Isik, N.M. Gasanly, Thermoluminescence properties of Al doped ZnO nanoparticles, <i>Ceramics International</i> , 44, 13929-13933, 2018
31	M. Isik, N.M. Gasanly, L.G. Gasanova, A.Z. Mahammadov, Thermoluminescence study in Cu ₃ Ga ₅ S ₉ single crystals: Application of heating rate and T _m -T _{stop} methods, <i>Journal of Luminescence</i> , 199, 334-338, 2018
32	S. Delice, M. Isik, N.M. Gasanly, Study on thermoluminescence of TlInS ₂ layered crystals doped with Pr, <i>Materials Science in Semiconductor Processing</i> , 80, 99-103, 2018
33	I. Guler, M. Isik, F. Ahmedova, A. Guseinov, N. Gasanly, Characteristic features of thermoluminescence in neodymium-doped gallium sulfide, <i>Luminescence</i> , 33, 759-763, 2018
34	M. Isik, N.M. Gasanly, Trap characterization by photo-transferred thermoluminescence in MgO nanoparticles, <i>Physica B-Condensed Matter</i> , 537, 301-305, 2018
35	M. Isik, H.H. Gullu, Annealing Effect on Dark Electrical Conductivity and Photoconductivity of Ga-In-Se Thin Films, <i>Acta Physica Polonica A</i> , 133, 1119-1123, 2018
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38	I. Guler, M. Isik, L. Gasanova, A. Mahammadov, N. Gasanly, Thermoluminescence in gallium sesquisulfide single crystals: usual and unusual heating rate dependencies, <i>Optik</i> , 165, 132-136, 2018
39	S. Delice, M. Isik, N.M. Gasanly, Characterization of trap centers in Gd ₂ O ₃ nanoparticles by low temperature thermoluminescence measurements, <i>Optik</i> , 237-242, 2018
40	M. Isik, E. Tugay, N. Gasanly, Optical properties of GaS crystals: Combined study of temperature-dependent band gap energy and oscillator parameters, <i>Indian Journal of Pure & Applied Physics</i> , 55, 583-588, 2017
41	M. Isik, E. Bulur, N.M. Gasanly, Photo-transferred thermoluminescence of shallow traps in β -irradiated BeO ceramics, <i>Journal of Luminescence</i> , 187, 290-294, 2017
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43	M. Isik, N. Gasanly, Determination of optical constants and temperature dependent band gap energy of GaS _{0.25} Se _{0.75} single crystals, <i>Journal of Optoelectronics and Advanced Materials</i> , 19, 374-378, 2017
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45	M. Isik, T. Yildirim, N.M. Gasanly, Analysis of Thermoluminescence glow peaks in beta-irradiated TlGaSeS crystals, <i>Acta Physica Polonica A</i> , 129, 1165-1168, 2016
46	M. Isik, S. Delice, N. Gasanly, Defect characterization of Ga ₄ Se ₃ S layered single crystals by thermoluminescence, <i>Pramana-Journal of Physics</i> , 86, 893-900, 2016
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48	M. Isik, N. Gasanly, Optical characterization of CuIn ₅ S ₈ crystals by ellipsometry measurements, <i>Journal of Physics and Chemistry of Solids</i> , 91, 13-17, 2016
49	M. Isik, T. Yildirim, N.M. Gasanly, Thermoluminescence properties of ZnO nanoparticles in the temperature range 10-300 K, <i>Journal of Sol-Gel Science and Technology</i> , 78, 76-81, 2016
50	M. Isik, E. Tugay, N.M. Gasanly, Temperature-tuned band gap energy and oscillator parameters of GaS _{0.5} Se _{0.5} single crystals, <i>Optik</i> , 127, 8301-8305, 2016
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54	M. Isik, S. Delice, N.M. Gasanly, Analysis of glow curve of GaS _{0.5} Se _{0.5} single crystals, Journal of Luminescence, 168, 236-240, 2015
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61	M. Isik, N.M. Gasanly, F. Korkmaz, Compositional Dependence of Optical Modes Frequencies in TlGa _(x) In _(1-x) S ₍₂₎ Layered Mixed Crystals (0 ≤ x ≤ 1), Acta Physica Polonica A, 126, 747-750, 2014
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65	M. Isik, S. Delice, N.M. Gasanly, Optical properties of TlGa _x In _{1-x} Se ₂ layered mixed crystals (0.5 ≤ x ≤ 1) by spectroscopic ellipsometry, transmission, and reflection, Philosophical Magazine, 94, 2623-2632, 2014
66	M. Isik, N.M. Gasanly, Interband critical points in TlGa _x In _{1-x} S ₂ layered mixed crystals (0 ≤ x ≤ 1), Journal of Alloys and Compounds, 581, 542-546, 2013
67	M. Isik, E. Bulur, N.M. Gasanly, TL and TSC studies on TlGaSe ₂ layered single crystals, Journal of Luminescence, 144, 163-168, 2013
68	M. Isik, N.M. Gasanly, Temperature-dependent electrical resistivity, space-charge-limited current and photoconductivity of Ga _{0.75} In _{0.25} Se single crystals, Physica B-Condensed Matter, 421, 53-56, 2013
69	M. Isik, N.M. Gasanly, F. Korkmaz, Multiphonon absorption processes in layered structured TlGaS ₂ , TlInS ₂ and TlGaSe ₂ single crystals, Physica B-Condensed Matter, 421, 50-52, 2013
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72	M. Isik, N.M. Gasanly, F. Korkmaz, Infrared and Raman scattering spectra of layered structured Ga ₃ InSe ₄ crystals, Physica B-Condensed Matter, 412, 61-63, 2013
73	M. Isik, N.M. Gasanly, R. Turan, Optical constants and interband transitions of anisotropic layered structured Tl ₂ GaInS ₄ crystals by spectroscopic ellipsometry, Journal of Alloys and Compounds, 549, 179-183, 2013
74	M. Isik, I. Guler, N.M. Gasanly, Temperature and excitation intensity tuned photoluminescence in Ga _{0.75} In _{0.25} Se crystals, Optical Materials, 35, 414-418, 2013
75	M. Isik, N.M. Gasanly, R. Turan, Interband transitions in gallium sulfide layered single crystals by ellipsometry measurements, Physica B-Condensed Matter, 408, 43-45, 2013

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77	M. Isik, N.M. Gasanly, R. Turan, Spectroscopic ellipsometry study of above-band gap optical constants of layered structured TlGaSe ₂ , TlGaS ₂ and TlInS ₂ single crystals, Physica B-Condensed Matter, 407, 4193-4197, 2012
78	M. Isik, N.M. Gasanly, Dielectric functions and interband critical points of anisotropic chain structured TlSe single crystals, Journal of Applied Physics, 112, 083526, 2012
79	M. Isik, N.M. Gasanly, Ellipsometry study of interband transitions in TlGaS _{2x} Se _{2(1-x)} mixed crystals (0 ≤ x ≤ 1), Optics Communications, 285, 4092-4096, 2012
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85	M. Isik, N.M. Gasanly, Trapping centers and their distribution in Tl ₂ Ga ₂ Se ₃ S layered single crystals, Journal of Physics and Chemistry of Solids, 70, 1048-1053, 2009
86	M. Isik, N.M. Gasanly, H. Ozkan, Deep traps distribution in TlInS ₂ layered crystals, Acta Physica Polonica A, 115, 732-737, 2009
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PROJECTS

1	TÜBİTAK (MFAG-116F304), Project Coordinato, "Nadir Toprak Elementi (Gd, Yb, Er) Katkılı ZnO Nanokristallerinin Sentezlenmesi Ve Düşük Sıcaklık Termoluminesans Özelliklerinin İncelenmesi" 15.03.2017-15.03.2019
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CITATIONS

Sum of times cited without self-citations (ISI Web of Science):	156
H-index (ISI Web of Science):	8

COURSES GIVEN

1	General Physics I-Mechanics (PHYS101)
2	General Physics II-Electricity and Magnetism (PHYS102)
3	Mathematical Methods in Physics (PHYS503)
4	Physics of Semiconductor Devices (PHYS516)

THESES SUPERVISED

1	Om-Alhana Habaibi, MS Thesis, Structural and Ellipsometric Properties of GaS(x)Se(1-x) Layered Mixed Crystals, 2017
2	Abeer Mami, MS Thesis, Photo-transferred Thermoluminescence Characteristics of Beta-Irradiated MgO Nanopowders, 2018
3	Nahed Emhemed, MS Thesis, Low Temperature Thermoluminescence Properties of Al-doped ZnO Nanoparticles, 2018