

PHYSICIST RESEARCHER
PROF. DR. ISRAFIL SABIKOGLU



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Address : Manisa Celal Bayar University Manisa TURKEY

Language : English - YOKDİL 82,5, YDS 71,25

Marital st : Married with children

Academic title : Full Professor

Academic Degree:

B.S. : 1996-2000 Celal Bayar University Department of Physics, Turkey

M.S. : 2000-2003 Celal Bayar University Institute of Natural and Applied Science Department of Physics, Turkey

Ph.D : 2007-2011 Celal Bayar University Institute of Natural and Applied Science Department of Physics, Turkey

Full Prof. : 2025

Research Interests:

Solid state synthesis, hydrothermal synthesis, sol-gel method, inorganic chemical synthesis, luminescence, luminescent materials, minerals, piezoelectric properties, piezoelectric sensor, design a composite piezoelectric sensor, polymer-based piezoelectric sensor, lead-free piezoelectric materials, statistics, deep learning, IOT, computer hardware and software.

SCI/SCI-Expanded Publications:

- 1- D.A.Şabikoğlu, A.Ege, **İ.Şabikoğlu**, Examination of luminescence and structural properties of commercially available luminescent powder materials, *Chemical Papers*, 79:6489–6511, 2025, DOI: **10.1007/s11696-025-04198-y**
- 2- **İ.Şabikoğlu**, N.Yenil, F.Yemiş, Various *Raphanus sativus* L. species growing in Kahramanmaraş-Turkey; detection and statistical evaluation of 35 phenolic compounds, *Int.J. Envi.Stu.* 82:4, 1613-1630, 2025 DOI: **10.1080/00207233.2025.2507453**
- 3- **İ. Şabikoğlu**, *Determination of Optical and Structural Properties of Lithium Silicate Ceramics with Different Ratios of Sm Doped*, ;Advanced Powder Technology, 33, 103685, 2022. DOI: **10.1016/j.appt.2022.103685**
- 4- N. Yenil, F. Yemiş, **İ. Şabikoğlu**, N. Memon, A. Güler, *Comparative Analyses of Few West Turkish Varieties of Pomegranate (Punica granatum L.) Peels for Phenolic Content Using Liquid Chromatography*, Polycyclic Aromatic Compounds, 43-5, 3941-3957, 2023. DOI: **10.1080/10406638.2022.2080727**
- 5- **İ.Şabikoğlu**, *Statistical Analysis and Susceptibility Properties of Heavy/Light Metal Pollution in Surface Seawater of Izmir Bay*, *Environmental Science and Pollution Research*, 2021. DOI: **10.1007/s11356-021-14607-w**
- 6- **İ.Şabikoğlu**, *Energy Harvesting Sensor; PZT0.5-M0.5(M:PVC, PP, PVDF) Composite Thick Film Equipped With SiO₂*, AIP Conf. Proc. 2178, 030005-1–030005-5, 2019. DOI: **10.1063/1.5135403**
- 7- U.H.Kaynar, **İ. Şabikoğlu**, *Adsorption of thorium (IV) by amorphous silica; response surface modelling and optimization*, *J.of Radioanalytical and Nuclear Chemistry*, 318, 823-834, 2018. DOI **10.1007/s10967-018-6044-5**
- 8- L. Schlattauer, L. Paralı, J. Pechousek, **İ. Şabikoğlu**, C. Celiktas, G. Tektas, P. Novak, A. Jancar and V. Prochazka, *Calibration of gamma-ray detectors using Gaussian photoppeak fitting in the multichannel spectra with a LabVIEW-based digital system*, *European J. of Physics (SCI-Expanded)*, 38, 055806, 2017. DOI: **10.1088/1361-6404/aa7a7a**
- 9- U.H. Kaynar, **İ. Şabikoğlu**, S. Çam Kaynar, M. Eral, *Modelling of Thorium (IV) ions adsorption onto a novel adsorbent material silicon dioxide nano-balls using responce surface methodology*, *Applied Radition and Isotopes (SCI-Expanded)*, V.115, p280-288, 2016. DOI: **10.1016/j.apradiso.2016.06.033.**
- 10- L.Paralı, J.Pechousek, **İ.Şabikoğlu**, P.Novak, J.Navarik, M.Vujtek, *A Digital Measurement System Based on Laser Displacement Sensor for Piezoelectric Ceramic Discs Vibration Characterization*, *Optik-International Journal of Light and Electron Optics*, V.27, 1, p85-89, 2016. DOI: **10.1016/j.ijleo.2015.10.099.**

- 11- H.A.Mahmadov, L.Paralı, M.A.Kurbanov, A.A.Bayramov, F.N.Tatardar, **İ.Şabikoğlu**, *Piezoresistive and Posistor Effects in Polymer-Semiconductor and Polymer-Ferropiezoceramic Composites*, Semiconductors, V.50, 5, p621-626, 2016. DOI: **10.1134/S1063782616050171**.
- 12- **İ. Şabikoğlu**, L.Paralı, O.Malina, P.Novak, et.al., *The Effect of Neodymium Substitution on the Structural and Magnetic Properties of Nickel Ferrite*, Progress in Natural Science-Materials International, V.25, Issue 3, p215-221, 2015. DOI: **10.1016/j.pnsc.2015.06.002**.
- 13- L.Paralı, **İ.Şabikoğlu**, J.Tucek, J.Pechousek, P.Novak, J.Navarik, Dielectric Behaviours at Microwave Frequencies and Mossbauer Effects of Chalcedony, Agate, Zultanite, Chinese Physics B, V.24 issue 5, 059101, 2015. DOI: **10.1088/1674-1056/24/5/059101**.
- 14- **İ.Şabikoğlu**, L.Paralı, *FTIR and VSM Properties of Samarium-Doped Nickel Ferrite*, Functional Material Letters, Vol.7 no.4 1450046, 2014. DOI: **10.1142/S1793604714500465**.
- 15- L.Paralı, **İ.Şabikoğlu**, M.Kurbanov, *Piezoelectric Properties of the New Generation Active Matrix Hybrid (Micro-Nano) Composites*, Applied Surface Science, Vol.318 6-9 2014. DOI: **10.1016/j.apsusc.2013.10.043**.
- 16- **İ.Şabikoğlu**, *Synthesis of Eu and Dy doped $Sr_3B_2SiO_8$ using solid state reaction and investigation of radio and photoluminescence properties of these materials*, Journal of Alloys and Compounds 556 (2013) 135–138. DOI: **10.1016/j.jallcom.2012.12.114**.
- 17- N.Küçer, **İ.Şabikoğlu**, N.Can, *Measurements of Environmental Pollution in Industrial Area Using Magnetic Susceptibility Method*, Acta Physica Polonica A, V121, p16, 2012.
- 18- M.Ayvacıklı, A.Khatib, A.Ege, **İ.Şabikoğlu**, M.Henini, N.Can, *Absorption and photoluminescence spectroscopy of Er^{3+} -doped $SrAl_2O_4$ ceramic phosphors*, Philosophical Magazine & Philosophical Magazine Letters, 92, 4, 194-201, 2012. DOI: **10.1080/09500839.2011.652685**.
- 19- **İ.Şabikoğlu**, M.Ayvacıklı, A.Bergeron, A.Ege, N.Can, *Photoluminescence investigations of $Li_2SiO_3:Ln$ ($Ln=Er^{3+}, Eu^{3+}, Dy^{3+}, Sm^{3+}$) Phosphors*, J. Of Luminescence, 132, 1597-1602, 2012. DOI: **10.1016/j.jlumin.2012.02.008**.

National Publications:

- 1- E.Yıldırım, **İ. Şabikoğlu**, *The Software Design Overview by Processing The Recording From Bird's Eye View Images to Determine The Crop Detection and Functionality of The Various Land Types*, Iğdır University, Journal of the Institute of Science and Technology, 13(3), 1711-1717, 2023. DOI: **10.21597/jist.1134720**
- 2- **İ.Şabikoğlu**, D.Akbaba Şabikoğlu, *Comparison of Environment Noise Intensity Using Ios and Android Based Sound Measurement Applications and Commercial Sound Measurement Devices and Obtaining the Measurement Uncertainty*, Van Yüzünyü Yıl Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 26, 2, 69-79, 2021. DOI: **10.53433/yyufbed.894712**

- 3- L. Paralı **İ. Şabikoğlu**, The Fabrication of Local Piezoelectric Sensors Using Hydraulic Pressing System Based on PLC, CBÜ Journal of Science ISSN 1305-1385 (Ulakbim Tr Index, Index Copernicus, DOAJ, CiteFactor, OAJI), V13, 3, p651-655. **DOI: 10.18466/cbayarfbe.339322**
- 4- **İ.Şabikoğlu**, Optical Characterization of Eu³⁺ Doped and Undoped Sr₂CeO₄ Phosphors, CBÜ Journal of Science ISSN 1305-1385 (Ulakbim Tr Index, Index Copernicus, DOAJ, CiteFactor, OAJI), V12, N1, 2016. **DOI: <http://dx.doi.org/10.18466/cbujos.47793>**.
- 5- **İ.Şabikoğlu**, Investigation of Radioluminescence Properties of Eu and Tb Doped LuBO₃ and LaGdPO₄, SDÜ Journal of Science, (Zentralblatt MATH, EBSCOhost, CAS, CAB Abstracts), 17(3), 42-45,

Editorship and Authorship of Original Scientific Books/Chapters Published by National/International Publishing Houses:

- 1- **İ.Şabikoğlu**, N.Yenil, Dynamics of occupational accidents in the Turkish chemical industry: a ten-year analysis with deep learning and statistical methods, Research, Methodology and Innovation in Engineering Sciences, part VI, 83-125, 2025. e-ISBN: 978-2-38236-905-0, Lyon Press, **DOI: 10.5281/zenodo.17342865**

Overseas Experience (Seminar/Workshop etc.)

- 1- Czechia, Palacky University, Regional center of advanced Technologies and materials, Workshop, "Synthesis of Nd doped Nickel Ferrite magnetic material", Workshop management and experimental method presentation, 7-14 Sep. 2013, Olomouc, Czechia.
- 2- Azerbaijani National Science Academia, 2. Workshop, "Polymer based hybrid piezo sensor's production" 8-12 May. 2013, Workshop management and presentation, Baku, Azerbaijani.
- 3- Azerbaijani National Science Academia, 1. Workshop, "Multi functional photo-piezoelectric sensor's production and electronic measurements" 1-4 Nov. 2012, Workshop management and presentation, Baku, Azerbaijani.

National Projects:

- 1- Investigation of Antioxidant Potential and Phenolic Compound Profile of Different Genotypes of Raphanus sativus L. Species, TÜBİTAK 1002 Project, 98,500 TL, Researcher. 2025-Ongoing.
- 2- Synthesis of Rare Earth Element Doped SiO₂-LaPO₄ Material by Hydrothermal Synthesis Method and Investigation of Luminescence and Structural Properties. BAP, 39,884 TL, Researcher, 2024 – Ongoing
- 3- Investigation of Structural and Optical Properties of Commercial Paints and Powders with Luminescence Properties, BAP, 19.899 TL, Manager, 2023-24.

- 4- Production and characterization of Ferite type materials, BAP 2020-2021 4275 TL, Manager.
- 5- Produce, Design and Characterization of the Piezoelectric Sensors, BAP 2015-016, 22.642 TL, Researcher, 2015-2017.
- 6- Obtaining of the High Resolution Radiation Spectroscopy using by Numerical Signal Processing System, BAP 2012-014, 20.000 TL, Researcher, 2012-2014.
- 7- Synthesis of the Nano-Sized LuBO₃:NTE ve La-GdPO₄:NTE (NTE:Eu, Sm, Dy, Tb) Phosphors using by Hydrothermal Synthesis System, BAP 2012-02, 29.998 TL, Manager, 2012-2013
- 8- Synthesis and Investigation of the Luminescence Properties of Doped Lithium Silicate Glassy Ceramics, BAP 2010-034, 17.162 TL, Researcher, 2010-2012.
- 9- Synthesis, Optical Properties and Characterization of the Lithium Silicate Nitrate and Strontium Boraluminate Glassy Ceramics, BAP 2009-063, 88.000 TL, Researcher, 2009-2011.
- 10- Magnetic Susceptibility and Radioactivity of The Soma Poer Plant's Coal Ashes, BAP 2002/08, 15.000TL, Researcher, 2002-2003.

Proceeding of International Conferences:

- 1- **İ.Sabikoğlu**, Investigation of Structural Characterization of Dy Doped LuBO₃ and LaGdPO₄ Materials, 1st International Conference of Physics, Ankara 17 Augu. 2021.
- 2- **İ.Şabikoğlu**, Dose Response and Optical Characteristics of Natural Stones in Bandırma, Afyon, Çanakkale, and Amasya, 2. International Science and Innovation Congress, Ankara, 22-23 May 2021.
- 3- **İ.Şabikoğlu**, Energy Harvesting Sensor; PZT0.5-M0.5(M:PVC, PP, PVDF) Composite Thick Film Equipped With SiO₂, Turkish Physical Society 35th International Physics Congress, 4-8 Sep., Bodrum Muğla, 2019.
- 4- **İ.Şabikoğlu**, Nano SiO₂ Modified PZT PVDF Composite Film, 4th International Ege Composite Symposium (KOMPEGE), 6-8 September, İzmir, TURKEY, 2018.
- 5- **İ. Şabikoğlu**, A synthesizing type of material science, solid state synthesis with a sample doped-NiFe₂O₄ compound, 1. International University Industry Cooperation, R&D And Innovation Congress, 18-19 December, Manisa Turkey, 2017
- 6- L.Schlattauer, J.Pechousek, L.Paralı, **İ.Sabikoglu**, C.Celiktas, G.Tektas, P.Novak, A.Jancar, V.Prochazka, Calibration of gamma-ray detectors using Gaussian photopeak fitting in the multichannel spectra with LabVIEW based digital system, International conference on radioanalytical and nuclear chemistry RANC, 10-15 April, Budapest, Hungary, 2016
- 7- **İ.Şabikoğlu**, L.Paralı, M.Kurbanov, Piezoelectric properties of polymer-ferropiezoelectric composites crystallized by plasma electric discharge, 10th Nanoscience and nanotechnology conference, 17-21 June, İstanbul, Turkey, 2014.

- 8- L.Paralı, **İ.Şabikoğlu**, M.A.Kurbanov, F.N.Tatardar, A.A.Bayramov, Piezoresistive and posistors effect in polymer-semiconductor and polymer-ferropiezoceramic composites, 10th Nanoscience and nanotechnology conference, 17-21 June, İstanbul, Turkey, 2014.
- 9- **İ. Şabikoğlu**, Investigation of radioluminescence properties of Eu³⁺ doped Sr₂CeO₄ phosphors, 31. International Turkish Physical Society Congree, 21-24 July 2014, Bodrum, Turkey.
- 10- **İ.Şabikoğlu**, M.Ayvacıklı, N.Can, Lityum silikat camısı seramiğin sentezlenmesi ve katkılandırılması, 27. Turkish Physical Society Congree, 14-17 September 2010, İstanbul, Turkey.
- 11- **İ.Şabikoğlu**, N.Küçer, N.Can, Çevresel Kirliliğin Manyetik Alınganlık Yöntemiyle Göstergesi, 26. Turkish Physical Society Congree, 2009, Turkey (Turkish).
- 12- **İ.Şabikoğlu**, M.Ayvacıklı, S.Uysal, M.Durukan, N.Can, Dumanlı Kuvars Mineralinin TL Spektrumunun ve Tuzak Parametrelerinin İncelenmesi, 25. Turkish Physical Society Congree, 2008, Turkey (Turkish).
- 13- **İ.Şabikoğlu**, S.Çam, F.S.Ereeş, Gölarmara Göl Sularında Manyetik Süseptibilite ve Element Tayini, 24. Turkish Physical Society Congree, 2007, Turkey (Turkish).

Proceeding of National Conferences:

- 1- **İ.Şabikoğlu**, Fizikçi, Kimyager ve Biyologlar için günümüzün en iyi iş fırsatı, İş Güvenliği Uzmanlığı, GEFİK 2016, İzmir, 2016.
- 2- **İ.Şabikoğlu**, Çeşitli malzeme sentezleme yöntemleri ve dikkat edilecek hususlar, GEFİK 2013, İzmir, 2013, Turkey (Turkish)
- 3- C.Uçak, G.Gök, S.Sop, **İ.Şabikoğlu**, M.Ayvacıklı, R.Gümüş, A.Ege, N.Can, Doğal zultanit taşının optik ve radyölüminesans özellikleri, 5. Lüminesans Dozimetri Kongresi, Mersin, 2011, Tukey (Turkish).
- 4- M.Ayvacıklı, A.Ege, **İ.Şabikoğlu**, N.Can, SrAl₂O₄:Eu seramik fosforunun lüminesans özellikleri, 5. Lüminesans Dozimetri Kongresi, Mersin, 2011 Turkey (Turkish).
- 5- O.Dinçer, A.Ege, M.Ayvacıklı, **İ.Şabikoğlu**, N.Can, Terbiyum ile katkılandırılmış lityum borat fosforunun sentezi ve lüminesans karakterizasyonu, 5. Lüminesans Dozimetri Kongresi, Mersin, 2011 Turkey (Turkish).
- 6- **İ.Şabikoğlu**, N.Can, Li₂SiO₃ camısı seramiğin sentezlenmesi, katkılandırılması ve lüminesans özellikleri, 5. Lüminesans Dozimetri Kongresi, Mersin, 2011 Turkey (Turkish).
- 7- D.Göksoy, S.Uçkaç, **İ.Şabikoğlu**, M.Ayvacıklı, N.Can, Türkiyede'ki bazı doğal taşların optiksel özelliklerinin ve mineral yapılarının incelenmesi, 4. Luminesans Dozimetri Kongresi Gaziantep 20-22 Sept. 2010 Turkey (Turkish).

- 8- M.Koyun, M.Ayvacıklı, **İ.Şabikoğlu**, A.Ege, N.Can, Kuvars minerallerinin optiksel ve lüminesans özelliklerinin incelenmesi, 4. Luminesans Dozimetri Kongresi Gaziantep 20-22 Sept. 2010 Turkey (Turkish).
- 9- G.Gök, D.Tatlıldil, C.Uçak, S.Sop, B.Aralar, İ.Kalp, **İ.Şabikoğlu**, N.Can, Çeşitli mermer türlerinin ışıldama özelliklerinin termolüminesans bazında incelenmesi, 4. Luminesans Dozimetri Kongresi Gaziantep 20-22 Sept. 2010 Turkey (Turkish).
- 10- M.Ayvacıklı, **İ.Şabikoğlu**, A.Ege, N.Can, Nadir toprak elementleri (Eu,Er,Dy,Sm) ile katkılandırılmış boralüminat seramiklerinin sentezi ve lüminesans özelliklerinin incelenmesi, 4. Luminesans Dozimetri Kongresi Gaziantep 20-22 Sept. 2010 Turkey (Turkish).
- 11- **İ.Şabikoğlu**, N.Can, Kalsit Mineralinin TL ve Optiksel Soğurma Ölçümlerinin İncelenmesi, Tam Metin, 10. Ulusal Nükleer Bilimler Kongresi, 2009 Turkey (Turkish).
- 12- **İ.Şabikoğlu**, S.Çam, F.S.Ereeş, N.Can, Soma Kömür küllerinin manyetik süseptibilite ve radyoaktivite değerlerinin incelenmesi, 9. Nükleer Bilimler ve Teknolojileri Kongresi, 2005 Turkey (Turkish).
- 13- **İ.Şabikoğlu**, N.Can, Kömür küllerinin manyetik süseptibilitesi, 21. Fizik Kongresi, 2002 Turkey (Turkish).
- 14- S.Çam, **İ.Şabikoğlu**, Y.Gültekin, F.S.Ereeş, N.Can, Çeşitli sigara külü örneklerinde toplam radyoaktivite içerikleri ile manyetik süseptibilite arasındaki ilişkinin incelenmesi, 21. Fizik Kongresi, 2002 Turkey (Turkish).

Reviewer/Editor in Journal:

- 1- Reviewer; Applied Physics A, 2023
- 2- Reviewer; Journal of materials research, 2020
- 3- Editor, Nanotechnology and nanomaterials research, 2019
- 4- Reviewer; Inorganic and Nano-Metal Chemistry, 2019
- 5- Reviewer; Journal of Radioanalytical and Nuclear Chemistry, 2019
- 6- Reviewer; Journal of Materials Science, 2018, 2019
- 7- Editor; Journal of Material Sciences and Applications, 2017.
- 8- Reviewer; Süleyman Demirel University, Journal of Natural and Applied Science, 2016
- 9- Reviewer; Journal of Materials Science, 2016
- 10- Reviewer; Celal Bayar University Journal of Science, 2016
- 11- Reviewer; Applied Surface Science, 2014.
- 12- Reviewer; Luminescence: The Journal of Biological and Chemical Luminescence, 2013.
- 13- Reviewer; Solid State Communications, 2013.

Be Assigned in National/International Conference

- 1- 50th, 51st, 52nd Tubitak (The Scientific and Technological Research Council of Turkey) High School Students Research Project Competition, **Jury Membership** in Aegean Region in Turkey, February 2019.
- 2- 2017 Conference on Functional Materials and Applications (FMA 2017), 3-5 January 2017 Guilin China, **Member of Scientific Committee**, China.
<http://www.engji.org/conf/FMA/2017Jan>
- 3- The 3th International Conference on Mechanical Science and Technology (CMSE 2016), 25, 26 August 2016, Sanya China, **Member of Tehnical Program Committee**, China.
<http://www.icmses.com/index.html>
- 4- 2016 International Conference on Advanced Electronic Science and Technology, 19-21 August 2016 Shenzhen China, **Member of Scientific Committee and Technical Program Committee**, China. <http://www.aest2016.org/>
- 5- 12th Nanoscience and Nanotechnology Conference, 03-05 June 2016 Gebze Turkey, **Member of Scientific Committee**, Gebze Technical University, Kocaeli, Turkey.
<http://www.nanotr12.org/>
- 6- 1st International Conference on Green Chemistry and Sustainable Energy Technologies, September 30-October 3 2015 İzmir Turkey, **Member of Scientific Committee**, Katip Çelebi University, İzmir, Turkey. <http://qcsti2015.org/>
- 7- National 6th Luminescence Dosimetry Conference, 11-13 Sep. 2012, **Member of Executive Committee**, Çeşme, İzmir, Turkey.
- 8- National 2nd Luminescence Dosimetry Conference, 21-23 August 2008, **Member of Executive Committee**, Celal Bayar University, Manisa, Turkey.

Lecturing Experience

- 1- Electromagnetic field theory (2025)
- 2- Physics 1-2 (2025)
- 3- Basic programming – Matlab (2021-...)
- 4- Basic computer sciences – Arduino programming (2020-...)
- 5- Statistic physics (2020-...)
- 6- Elektric and Electronic (2020 - ...)
- 7- Basic Computer Programming (Matlab- Bioengineering, English) 2019
- 8- Electrical Circuits and Electronic (Computer Engineering, English) (2019)
- 9- Spectrometers (2019)
- 10- Vibrations and Waves (2019)
- 11- Differential Equations (2018)
- 12- General Physics (2017-...)
- 13- Occupational Health and Safety (Department of Physics) (2017-2020).

- 14- Physics Laboratory (Mechanic and Electric- Engineering Faculty, English) (2013-2018)
- 15- Mechanic and Electrical Physics Laboratory – Engineering and Science Faculty English, (2011-2018)
- 16- Analog and Digital Electronics Laboratory – Science Faculty (2000-2018)

Concultyancy

- 1- İSG Teknik Ölçüm A.Ş., Occupational health and safet laboratory accreditain. 2014- present
- 2- İSG İzmir Ortak Sağlık ve Güvenlik Birimi Dan. San. Tic. Ltd.Şti, İş Güvenliği Eğitim ve Danışmanlığı, 2014- present
- 3- Elektrik Elektronik Üzerine Çalışan Özel Sektör Katılımcılarına, İş Güvenliği Eğitimleri Danışmanlığı. 2014- present

Public/Private sector duties

- 1- Researcher in Manisa Celal Bayar University, 2000 – present
- 2- Co-partner and funder of İSG Teknik Ölçüm A.Ş., 2014 – present