

Prof. BÜLENT GÜLTEKİN AKINOĞLU

Personal Information

Office Phone: [+90 312 210 5064](tel:+903122105064)

Fax Phone: [+90 312 210 5099](tel:+903122105099)

Email: bulo@metu.edu.tr

Web: <http://www.physics.metu.edu.tr/~bulent/>

Address: ODTÜ Fizik Bölümü; 06800

International Researcher IDs

ScholarID: Bulent

ORCID: 0000-0003-1987-6937

Publons / Web Of Science ResearcherID: A-4927-2014

ScopusID: 6602089703

Yoksis Researcher ID: 12876

Education Information

Doctorate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Fizik (Dr), Turkey 1982 - 1989

Foreign Languages

English, C1 Advanced

Research Areas

Natural Sciences

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 2001 - Continues

Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1990 - 2001

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1991 - 1993

Lecturer PhD, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1990 - 1991

Research Assistant, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1979 - 1990

Courses

SOLAR ENERGY I, Undergraduate, 2018 - 2019, 2017 - 2018

GENERAL PHYSICS II (ELECTRICITY AND MAGNETISM), Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 1999 - 2000, 1994 - 1995

PHYSICS OF SOLAR ENERGY, Postgraduate, 2018 - 2019, 2017 - 2018

GENERAL PHYSICS I, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 1999 - 2000, 1994 - 1995
SOLAR ENERGY 2, Undergraduate, 2017 - 2018, 1994 - 1995, 1993 - 1994, 1992 - 1993
ELEKTROMAGNETİK THEORY I, Postgraduate, 2013 - 2014, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006, 2004 - 2005, 2003 - 2004, 1998 - 1999, 1997 - 1998
MODERN PHYSICS, Undergraduate, 1997 - 1998
KATIHAL FİZİĞİ, Postgraduate, 1996 - 1997
QUANTUM PHYSICS, Undergraduate, 1994 - 1995, 1993 - 1994, 1992 - 1993

Advising Theses

Aknoğlu B. G., Monitoring and analyzing the sustainability performance of a renewable energy investment with a case study-tugra hepp, Postgraduate, İ.KALEMCİ(Student), 2023
Aknoğlu B. G., Climate change and agriculture: The impact of climate change on crop production in Türkiye, Doctorate, S.SİMİN(Student), 2023
Kilkiş Ş., Aknoğlu B. G., A Sustainable Approach to Solar Technologies: Recycling Solar Panels In Turkey, Postgraduate, A.Aşkın(Student), 2022
AKINOĞLU B. G., Monitoring, analysis, and simulation of photovoltaic heat island effect in Turkey: Sekbandemirli solar power plant field study, Doctorate, E.DEMİREZEN(Student), 2022
AKINOĞLU B. G., Evaluating maritime intelligent transportation systems: The case of using electric ferries and renewable energy in Türkiye, Doctorate, C.PENSE(Student), 2022
AKINOĞLU B. G., Calculation of the macroeconomic carbon rebound effect of the European Union emission trading system, Doctorate, C.KAAN(Student), 2022
AKINOĞLU B. G., Modeling and simulation of a combined system of multiple rooftop PV systems and a central energy storage system for METU Ankara Campus, Postgraduate, N.IRMAK(Student), 2022
AKINOĞLU B. G., Long term performance and degradation rates of PV modules in Central Anatolia, Postgraduate, Z.CANTÜRK(Student), 2021
AKINOĞLU B. G., Natural gas infrastructure expansions in Turkey: Economic feasibility and a cost comparison with PV investments, Postgraduate, B.MANSIZ(Student), 2021
ERCAN H., AKINOĞLU B. G., Emission reduction vs exploitation of domestic fossil sources:is climate change mitigation compatible with using domestic coal, Doctorate, H.HÜSEYİN(Student), 2021
Aknoğlu B. G., Description and verification of a model to calculate the efficiency of a bifacial pv module using theoretical and experimental observations, Postgraduate, B.Durusoy(Student), 2020
AKINOĞLU B. G., Technical potential of rooftop solar photovoltaic for Ankara: A preliminary study, Postgraduate, E.Ceren(Student), 2020
AKINOĞLU B. G., Using artificial neural network (ANN) techniques for solar irradiation predictions, Postgraduate, E.Can(Student), 2019
AKINOĞLU B. G., Investigating the performances of photovoltaic modules/systems for Central Anatolia using a thermal modeling approach, Postgraduate, B.Tunçel(Student), 2019
Aknoğlu B. G., INVESTIGATING THE PERFORMANCES OF PHOTOVOLTAIC MODULES/SYSTEMS FOR CENTRAL ANATOLIA USING A THERMAL MODELLING APPROACH, Postgraduate, B.TUNÇEL(Student), 2019
AKINOĞLU B. G., Development of the algorithm of solar TURnKEY: Solar electricity software for Turkey, Doctorate, A.BUĞRAHAN(Student), 2018
AKINOĞLU B. G., ÖZDEMİR Ö., Investigating preferences of households for residential photovoltaic systems: A survey study in Ankara, Turkey, Postgraduate, E.ASLIHAK(Student), 2016
AKINOĞLU B. G., SOYTAŞ U., Decarbonization of turkish public electricity sector: Adopting sustainable energy portfolio, Postgraduate, H.ŞAHİN(Student), 2014
SOYTAŞ U., AKINOĞLU B. G., Nuclear energy versus solar energy (Nuke vs. PV): The comparison of their economic feasibilities and environmental aspects for Turkey, Postgraduate, A.BUĞRAHAN(Student), 2014
AKINOĞLU B. G., Linking satellite imagery to bright sunshine hours for the estimation of global solar irradiation,

Doctorate, S.ENER(Student), 2013

AKINOĞLU B. G., YILMAZ İ. Ö., Analysis of sunshine duration between 1970 and 2010 for Turkey, Postgraduate, U.YILDIRIM(Student), 2013

AKINOĞLU B. G., Photoluminescence study of ge-implanted gase and inse single crystals grown by bridgman method, Postgraduate, S.Bilgi(Student), 2006

AKINOĞLU B. G., Aknoğlu B., Steady state and transient simulations in 2D and 3D for crystal growth by vertical bridgman systems, Doctorate, E.Taşarkuyu(Student), 2003

AKINOĞLU B. G., PARLAK M., Structural electrical and optical characterization of N- and Si-implanted GaSe single crystal grown by bridgman method, Doctorate, O.Karabulut(Student), 2003

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Is there a macroeconomic carbon rebound effect in EU ETS?**
Bolat C. K., Soytaş U., AKINOĞLU B. G., Nazlıoğlu S.
Energy Economics, vol.125, 2023 (SSCI)
- II. **Recycling photovoltaic modules within a circular economy approach and a snapshot for Türkiye**
Aşkın A., KILKIŞ Ş., AKINOĞLU B. G.
Renewable Energy, vol.208, pp.583-596, 2023 (SCI-Expanded)
- III. **A sound potential against energy dependency and climate change challenges: Floating photovoltaics on water reservoirs of Turkey**
Kulat M. I., TOSUN K., Karaveli A. B., YÜCEL İ., AKINOĞLU B. G.
RENEWABLE ENERGY, vol.206, pp.694-709, 2023 (SCI-Expanded)
- IV. **Technical potential of rooftop solar photovoltaic for Ankara**
Kutlu E. C., Durusoy B., Ozden T., AKINOĞLU B. G.
Renewable Energy, vol.185, pp.779-789, 2022 (SCI-Expanded)
- V. **ANALYSIS AND ASSESSMENT OF DAILY AND SEASONAL PHOTOVOLTAIC HEAT ISLAND EFFECT ON SEKBANDEMIRLI RURAL REGION BY LOCAL WEATHER DATA RECORDS**
DEMİREZEN E., ÖZDEN T., AKINOĞLU B. G.
ISI BİLİMİ VE TEKNİĞİ DERGİSİ-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.42, no.2, pp.157-168, 2022 (SCI-Expanded)
- VI. **Beyond 3rd generation solar cells and the full spectrum project. Recent advances and new emerging solar cells**
AKINOĞLU B. G., Tuncel B., Badescu V.
Sustainable Energy Technologies and Assessments, vol.46, 2021 (SCI-Expanded)
- VII. **Solar irradiation on the rear surface of bifacial solar modules: a modeling approach**
Durusoy B., ÖZDEN T., AKINOĞLU B. G.
SCIENTIFIC REPORTS, vol.10, no.1, 2020 (SCI-Expanded)
- VIII. **One-year performance evaluation of two newly developed back-contact solar modules in two different climates**
ÖZDEN T., Carr A. J., Geerligs B. (J.), TURAN R., AKINOĞLU B. G.
RENEWABLE ENERGY, vol.145, pp.557-568, 2020 (SCI-Expanded)
- IX. **Comparisons and critical assessment of global and diffuse solar irradiation estimation methodologies**
Karaveli A. B., AKINOĞLU B. G.
INTERNATIONAL JOURNAL OF GREEN ENERGY, vol.15, no.5, pp.325-332, 2018 (SCI-Expanded)
- X. **Development of new monthly global and diffuse solar irradiation estimation methodologies and comparisons**
Karaveli A. B., AKINOĞLU B. G.
INTERNATIONAL JOURNAL OF GREEN ENERGY, vol.15, no.5, pp.333-346, 2018 (SCI-Expanded)
- XI. **Long term outdoor performances of three different on-grid PV arrays in central Anatolia - An**

extended analysis

ÖZDEN T., AKINOĞLU B. G., TURAN R.

RENEWABLE ENERGY, vol.101, pp.182-195, 2017 (SCI-Expanded)

- XII. **Comparison of large scale solar PV (photovoltaic) and nuclear power plant investments in an emerging market**
Karaveli A. B., SOYTAŞ U., AKINOĞLU B. G.
ENERGY, vol.84, pp.656-665, 2015 (SCI-Expanded)
- XIII. **Estimation of daily global solar irradiation by coupling ground measurements of bright sunshine hours to satellite imagery**
Rusen S. E., Hammer A., AKINOĞLU B. G.
ENERGY, vol.58, pp.417-425, 2013 (SCI-Expanded)
- XIV. **Combining the satellite imagery with bright sunshine hours: A review**
AKINOĞLU B. G., Rusen S. E.
JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY, vol.5, no.4, 2013 (SCI-Expanded)
- XV. **Influence of ion implantation on structural and photoconductive properties of Bridgman grown GaSe single crystals**
KARABULUT O., Parlak M., Turan R., SERİNCAN U., Akinoglu B. G.
CRYSTAL RESEARCH AND TECHNOLOGY, vol.41, no.3, pp.243-249, 2006 (SCI-Expanded)
- XVI. **Optical anisotropy in GaSe**
Seyhan A., Karabulut O., AKINOĞLU B. G., Aslan B., Turan R.
CRYSTAL RESEARCH AND TECHNOLOGY, vol.40, no.9, pp.893-895, 2005 (SCI-Expanded)
- XVII. **Electrical properties of nitrogen implanted GaSe single crystal**
KARABULUT O., Parlak M., Turan R., SERİNCAN U., TAŞARKUYU E., Akinoglu B. G.
CRYSTAL RESEARCH AND TECHNOLOGY, vol.38, no.9, pp.811-816, 2003 (SCI-Expanded)
- XVIII. **Generation of a typical meteorological year using sunshine duration data**
Ecevit A., AKINOĞLU B. G., Aksoy B.
ENERGY, vol.27, no.10, pp.947-954, 2002 (SCI-Expanded)
- XIX. **Thermodynamics study of gramicidin S and dipalmitoylphosphatidylcholine model membrane interactions based on the FTIR spectroscopy**
AKINOĞLU B. G., Gheith M., Severcan F.
JOURNAL OF MOLECULAR STRUCTURE, vol.565, pp.281-285, 2001 (SCI-Expanded)
- XX. **Vitamin D-2 modulates melittin-membrane interactions**
Severcan F., Durmus H., Eker F., AKINOĞLU B. G., Haris P.
TALANTA, vol.53, no.1, pp.205-211, 2000 (SCI-Expanded)
- XXI. **Application of turbidity technique on peptide-lipid and drug-lipid interactions**
Eker F., Durmus H., AKINOĞLU B. G., Severcan F.
JOURNAL OF MOLECULAR STRUCTURE, vol.482, pp.693-697, 1999 (SCI-Expanded)
- XXII. **Solar domestic water heating in Turkey**
AKINOĞLU B. G., Shariah A., Ecevit A.
ENERGY, vol.24, no.5, pp.363-374, 1999 (SCI-Expanded)
- XXIII. **Spatial stabilization of Townsend and glow discharges with a semiconducting cathode**
Salamov B., Ellialtioglu S., AKINOĞLU B. G., Lebedeva N., Patriskii L.
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.29, no.3, pp.628-633, 1996 (SCI-Expanded)
- XXIV. **VISUALIZATION OF ELECTRICAL INHOMOGENEITIES IN HIGH-OHMIC SEMICONDUCTOR PLATES BY AN IONIZATION-TYPE PHOTOGRAPHIC SYSTEM**
LEBEDEVA N., SALAMOV B., AKINOĞLU B. G., ALLAKHVERDIEV K.
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.27, no.6, pp.1229-1232, 1994 (SCI-Expanded)
- XXV. **Pressure dependence of the raman spectra of cdinals4 layer crystal**
HASANLI N., AKINOĞLU B. G., Babaev S., Ibragimov Z.
High Pressure Research, vol.13, pp.115-120, 1994 (SCI-Expanded)
- XXVI. **ENHANCEMENT OF THE RESOLUTION OF A SEMICONDUCTOR PHOTOGRAPHIC SYSTEM IN A**

MAGNETIC-FIELD

SALAMOV B., AKINOĞLU B. G., ELLIATLIOGLU S., ALLAKHVERDIEV K., LEBEDEVA N.

JOURNAL OF PHOTOGRAPHIC SCIENCE, vol.42, no.3, pp.106-108, 1994 (SCI-Expanded)

XXVII. **Elastic Properties of GaS_{1-x}Se_x Layer Mixed Crystals by Brillouin Scattering**

HASANLI N., AKINOĞLU B. G., Ellialtıođlu Ő.

physica status solidi (b), vol.177, no.2, 1993 (SCI-Expanded)

XXVIII. **A FURTHER COMPARISON AND DISCUSSION OF SUNSHINE-BASED MODELS TO ESTIMATE GLOBAL SOLAR-RADIATION**

AKINOĞLU B. G., ECEVIT A.

ENERGY, vol.15, no.10, pp.865-872, 1990 (SCI-Expanded)

XXIX. **CONSTRUCTION OF A QUADRATIC MODEL USING MODIFIED ANGSTROM COEFFICIENTS TO ESTIMATE GLOBAL SOLAR-RADIATION**

AKINOĞLU B. G., ECEVIT A.

SOLAR ENERGY, vol.45, no.2, pp.85-92, 1990 (SCI-Expanded)

Articles Published in Other Journals

I. **Assessment of photovoltaic module temperature estimation for four years with four different software**

TOLGAY D., YAKUT M. S., ÖZDEN T., AKINOĞLU B. G.

Gümüşhane Üniversitesi Fen Bilimleri Dergisi, vol.13, no.1, pp.32-46, 2023 (Peer-Reviewed Journal)

II. **A simple correlation to estimate global solar irradiation on a horizontal surface using METEOSAT satellite images**

Aksoy B., Ener RüŐen S., AKINOĞLU B. G.

Turkish Journal of Engineering and Environmental Sciences, vol.35, no.2, pp.125-137, 2011 (Scopus)

Books & Book Chapters

I. **Fiziđin Temelleri 3 kitap**

AKINOĞLU B. G., H Murat A.

Palme Yayınevi, Ankara, 2015

II. **Recent Advances in the Relations between Bright Sunshine Hours and Solar Irradiation**

Aknođlu B. G.

in: Modeling Solar Radiation at the Earth Surface, Viorel Badescu, Editor, Springer-Verlag , Bucuresti, pp.115-141, 2008

Refereed Congress / Symposium Publications in Proceedings

I. **Deep Learning Algorithm Applied to Daily Solar Irradiation Estimations**

Akbaba E. C., YÜCE E., AKINOĞLU B. G.

6th International Renewable and Sustainable Energy Conference, Rabat, Malta, 5 - 08 December 2018

II. **Long and short term PV module and array performance calculations and feasibility studies**

AKINOĞLU B. G.

IRSEC'18 – 6th International Renewable and Sustainable Energy Conference, Rabat, Malta, 5 - 08 December 2018

III. **Determining Photovoltaic Module Performance and Comparisons**

Karaveli A. B., ÖZDEN T., AKINOĞLU B. G.

2018 International Conference on Photovoltaic Science and Technologies (PVCon), 4 - 06 July 2018, pp.1-5

IV. **Thermal Modeling and Verification of PV Module Temperature and Energy Yield Using Outdoor**

Measurements for Ankara, Turkey

Tuncel B., AKINOĞLU B. G., ÖZDEN T., Balog R. S.

2018 International Conference on Photovoltaic Science and Technologies (PVCon), 4 - 06 July 2018

- V. **Daily and Monthly Module Temperature Variation for 9 Different Modules**
ÖZDEN T., Tolgay D., AKINOĞLU B. G.
2018 International Conference on Photovoltaic Science and Technologies (PVCon), 4 - 06 July 2018, pp.4849-4854
- VI. **Performance and Degradation Analyses of two Different PV Modules in Central Anatolia**
ÖZDEN T., AKINOĞLU B. G., Kurtz S.
2018 International Conference on Photovoltaic Science and Technologies (PVCon), 4 - 06 July 2018
- VII. **Measurement of economic feasibility of photovoltaic power plants - application to Turkey**
Karaveli A. B., AKINOĞLU B. G., SOYTAŞ U.
2018 International Conference on Photovoltaic Science and Technologies, PVCon 2018, Ankara, Turkey, 4 - 06 July 2018
- VIII. **The Role of Legislations and Incentives in the Growth of a PV Market in a Developing Country**
Karaveli A. B., SOYTAŞ U., AKINOĞLU B. G.
5th International Renewable and Sustainable Energy Conference, IRSEC 2017, Tangier, Morocco, 4 - 07 December 2017
- IX. **Impacts of a photovoltaic power plant for possible heat island effect**
Demirezen E., Ozden T., Akinoğlu B. G.
2018 International Conference on Photovoltaic Science and Technologies, PVCon 2018, Ankara, Turkey, 4 - 06 July 2018
- X. **Approaching Net-Zero Energy Building Through Utilization of Building-Integrated Photovoltaics for Three Cities in Turkey-Preliminary Calculations**
Uygun U., AKGÜL Ç., GÜRSEL DİNO İ., AKINOĞLU B. G.
2018 International Conference on Photovoltaic Science and Technologies (PVCon), 4 - 06 July 2018
- XI. **Approaching Net-Zero Energy Building Through Utilization of Building-Integrated Photovoltaics for Three Cities in Turkey-Preliminary Calculations**
Uygun U., Akgül Ç., Gürsel Dino I., Akinoğlu B. G.
2018 International Conference on Photovoltaic Science and Technologies (PVCon), Ankara, Turkey, 4 - 06 July 2018
- XII. **Correlations between the water levels of Lakes Beysehir and Marmara with sunshine duration and time series of sunspot numbers**
Yıldırım U., YILMAZ İ. Ö., BEKLİOĞLU M., AKINOĞLU B. G.
7th GLOBALCONFERENCE on GLOBAL WARMING, İzmir, Turkey, 24 - 26 June 2018, pp.153-156
- XIII. **Recent advances in solar irradiation predictions as the input of solar system simulations: From Earth's surface measurements to satellite imagery From Angstrom correlation to ANN**
AKINOĞLU B. G.
5th International Renewable and Sustainable Energy Conference, 4 - 07 December 2017
- XIV. **Seasonal Variation of the Monthly Efficiencies of Thin Film PV Modules**
ÖZDEN T., TURAN R., AKINOĞLU B. G.
International Renewable and Sustainable Energy Conference - IRSEC-2017, 4 - 07 December 2017
- XV. **On the Yearly Performance of a Bifacial PV Module in Central Anatolia - Turkey**
ÖZDEN T., TURAN R., AKINOĞLU B. G.
International Renewable and Sustainable Energy Conference - IRSEC-2017, 4 - 07 December 2017
- XVI. **Evaluation and Comparisons of the Models to Calculate Solar Irradiation on Inclined Solar Panels for Ankara**
ÖZDEN T., AKINOĞLU B. G., KARAVELİ A. B.
33rd European PV Solar Energy Conference and Exhibition - EU PVSEC 2017, 25 - 29 September 2017, pp.2501-2504
- XVII. **Preliminary Investigations on Two Different Procedures to Calculate the Efficiency and Performance Ratio of PV Modules**

ÖZDEN T., AKINOĞLU B. G.

4th International Conference on Computational and Experimental Science and Engineering (ICCESEN 2017), 4 - 08 October 2017, pp.225

XVIII. Economic Analysis of a Typical Photovoltaic Power Plant in Turkey

Karaveli A. B., AKINOĞLU B. G., SOYTAŞ U.

33rd European Photovoltaic Solar Energy Conference and Exhibition, 25 - 29 September 2017, pp.2235-2239

XIX. Yenilenebilir Enerji Mümkün mü? Dünya ve Türkiye

AKINOĞLU B. G.

Güneydoğu Enerji Forumu, Turkey, 25 May 2017

XX. GUNAM's Outdoor PV Test Facility, recent research results and future prospects

AKINOĞLU B. G., ÖZDEN T., TURAN R.

Desert PV Modules, 9 - 10 May 2017

XXI. Effect of Ambient Conditions on Monthly Performances of Three Different PV Arrays

ÖZDEN T., AKINOĞLU B. G., TURAN R.

11th ISES EuroSun Conference, Palma, Spain, 11 - 14 October 2016, pp.1266-1272

XXII. Estimation of diffuse component for two locations in Turkey

Karaveli A. B., AKINOĞLU B. G.

11th ISES EuroSun Conference, Palma, Spain, 11 - 14 October 2016, pp.1467-1474

XXIII. LONG TERM OUTDOOR TESTING OF TWO DIFFERENT THIN FILM PV MODULES IN ANKARA TURKEY

ÖZDEN T., AKINOĞLU B. G., TURAN R.

9th International Conference on Sustainable Energy & Environmental Protection, 21 September 2016

XXIV. COMPARISON OF QUADRATIC AND LINEAR MODELS ON THE ESTIMATION OF DIFFUSE SOLAR RADIATION FOR FOUR LOCATIONS IN TURKEY

Karaveli A. B., AKINOĞLU B. G.

9th International Conference on Sustainable Energy & Environmental Protection, 21 September 2016

XXV. INVESTIGATING THE FACTORS AFFECTING WILLINGNESS TO PAY FOR RESIDENTIAL PHOTOVOLTAIC SYSTEMS A SURVEY STUDY IN ANKARA TURKEY

Aslihak E., ÖZDEMİR Ö., AKINOĞLU B. G.

9th International Conference on Sustainable Energy & Environmental Protection, 21 September 2016

XXVI. Outdoor efficiency analyses and comparison of on-grid CdTe and mu c-Si/a-Si thin-film PV systems for three years in Ankara - Turkey

ÖZDEN T., Yardım U., AKINOĞLU B. G., TURAN R.

3rd Turkish Solar Electricity Conference and Exhibition (SolarTR), Ankara, Turkey, 27 - 29 April 2015, vol.12, pp.1283-1287

XXVII. QUADRATIC VARIATION OF GLOBAL SOLAR RADIATION WITH BRIGHT SUNSHINE HOURS

AKINOĞLU B. G.

2ND WORLD RENEWABLE ENERGY CONGRESS, United Kingdom, 13 September - 18 January 1992, pp.2774-2778

Supported Projects

AKINOĞLU B. G., YILMAZ A., Demirezen E., Özden T. (D. D., TURAN R., Project Supported by Higher Education Institutions, Türkiye'de Büyük Ölçekli Güneş Enerjisi Santrallerinden Kaynaklı Olası "Isı Adası" Etkisinin İncelenmesi, 2017 - 2017

Metrics

Publication: 63

Citation (WoS): 620

Citation (Scopus): 721

H-Index (WoS): 14

H-Index (Scopus): 14

Non Academic Experience

METU

METU

METU