

## **Prof. Dr. Yaşar Gürkan ÇELEBİ**

### **Kişisel Bilgiler**

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### **Uluslararası Araştırmacı ID'leri**

ORCID: 0000-0003-1849-1197

Publons / Web Of Science ResearcherID: F-5929-2011

ScopusID: 6603296573

Yoksis Araştırmacı ID: 200900

### **Eğitim Bilgileri**

Post Doktora, Texas Tech University, Fizik, Amerika Birleşik Devletleri 1998 - 1999

Doktora, Texas Tech University, Fizik, Amerika Birleşik Devletleri 1995 - 1998

Yüksek Lisans, Texas Tech University, Fizik, Amerika Birleşik Devletleri 1992 - 1994

Lisans, İstanbul Üniversitesi, Fizik, Türkiye 1984 - 1989

### **Yabancı Diller**

İngilizce, C1 İleri

### **Yaptığı Tezler**

Doktora, COPPER DIFFUSION IN SILICON , Texas Tech University, Fen Fakültesi, Fizik, 1998

Yüksek Lisans, Electric Field Assisted Diffusion in Silicon, Texas Tech University, Fen Fakültesi, Fizik, 1994

### **Araştırma Alanları**

Fizik, Yoğun Madde 1:Yapısal, Mekanik ve Termal Özellikler , Yoğun maddede elektronik olmayan taşınım özellikleri, Yoğun Madde 2:Elektronik Yapı, Elektrik, Manyetik ve Optik Özellikler, Bulk malzemenin elektronik yapısı, Manyetik özellikler ve malzemeler, Sıvı ve katılarda ion ve elektron emisyonu, Yoğun maddede gevşeme ve manyetik rezonans, Mössbauer etkisi, Temel Bilimler

### **Akademik Unvanlar / Görevler**

Prof. Dr., İstanbul Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2012 - Devam Ediyor

Prof. Dr., Texas Tech University, Fen Fakültesi, Fizik, 2013 - 2013

Doç. Dr., İstanbul Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2006 - 2012

Doç. Dr., Texas Tech University, Seyahat, Turizm Ve Eğlence Hizmetleri, Fizik, 2010 - 2011

Yrd. Doç. Dr., İstanbul Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2000 - 2006

Okutman, İstanbul Üniversitesi, Fen Fakültesi, Fizik Bölümü, 1999 - 2000

Araştırma Görevlisi, Texas Tech University, Seyahat, Turizm Ve Eğlence Hizmetleri, Fizik, 1995 - 1998

Araştırma Görevlisi, İstanbul Üniversitesi, Fen Fakültesi, Fizik Bölümü, 1990 - 1990

## Akademik İdari Deneyim

Anabilim/Bilim Dalı Başkanı, İstanbul Üniversitesi, Fen Fakültesi, Fizik, 2012 - 2013

## SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

### I. Characterization of a GaAs/GaAsBi pin solar cell

Muhammetgulyyev A., Erbas Ö. G., Kinaci B., Donmez Ö., Celebi Y. G., Erol A.

SEMICONDUCTOR SCIENCE AND TECHNOLOGY, cilt.34, sa.8, 2019 (SCI-Expanded)

### II. Spectroscopic identification of shallow muonium acceptors in Si0.06Ge0.94

Carroll B. R., Lichti R. L., Mengyan P. W., Baker B. B., Celebi Y. G., King P. J. C., Chow K. H., Yonenaga I.

Applied Physics Letters, cilt.105, sa.12, 2014 (SCI-Expanded)

### III. The first 25 years of semiconductor muonics at ISIS, modelling the electrical activity of hydrogen in inorganic semiconductors and high- $\kappa$ dielectrics

Cox S. F. J., Lichti R. L., Lord J. S., Davis E. A., Vilao R. C., Gil J. M., Veal T. D., Celebi Y. G.

Physica Scripta, cilt.88, sa.6, 2013 (SCI-Expanded)

### IV. Muonium dynamics in transparent conducting oxides

Celebi Y. G., Lichti R. L., Baker B. B., Mengyan P. W., Bani-Salameh H. N., Catak E.

PHYSICA B-CONDENSED MATTER, cilt.407, sa.15, ss.2879-2882, 2012 (SCI-Expanded)

### V. Motion of positively charged muonium in ZnO

Baker B. B., Lichti R. L., Celebi Y. G., Mengyan P. W., Bani-Salameh H. N.

PHYSICA B-CONDENSED MATTER, cilt.407, sa.15, ss.2864-2866, 2012 (SCI-Expanded)

### VI. Muonium transitions in Ge-rich SiGe alloys

Mengyan P. W., Lichti R. L., Celebi Y. G., Carroll B. R., Baker B. B., Bani-Salameh H. N., Yonenaga I.

PHYSICA B-CONDENSED MATTER, cilt.407, sa.15, ss.2829-2832, 2012 (SCI-Expanded)

### VII. Muonium defect levels in Czochralski-grown silicon-germanium alloys

Carroll B. R., Lichti R. L., King P. J. C., Celebi Y. G., Yonenaga I., Chow K. H.

PHYSICAL REVIEW B, cilt.82, sa.20, 2010 (SCI-Expanded)

### VIII. Evidence for a shallow muonium acceptor state in Ge-rich Cz-Si1-xGex

Carroll B. R., Lichti R. L., Celebi Y. G., Chow K. H., King P. J. C., Yonenaga I.

PHYSICA B-CONDENSED MATTER, cilt.404, ss.5113-5116, 2009 (SCI-Expanded)

### IX. Hyperfine spectroscopy and characterization of muonium in ZnGeP2

Mengyan P. W., Baker B. B., Lichti R. L., Chow K. H., Celebi Y. G., Zawilski K. T., Schunemann P. C.

PHYSICA B-CONDENSED MATTER, cilt.404, ss.5121-5124, 2009 (SCI-Expanded)

### X. Muonium in 4H silicon carbide

Celebi Y. G., Lichti R. L., Carroll B. R., King P. J. C., Cox S. F. J.

PHYSICA B-CONDENSED MATTER, cilt.404, ss.5117-5120, 2009 (SCI-Expanded)

### XI. Shallow donor state of hydrogen in In2O3 and SnO2: Implications for conductivity in transparent conducting oxides

King P. D. C., Lichti R. L., Celebi Y. G., Gil J. M., Vilao R. C., Alberto H. V., Duarte J. P., Payne D. J., Egdell R. G., McKenzie, et al.

PHYSICAL REVIEW B, cilt.80, sa.8, 2009 (SCI-Expanded)

### XII. Muonium transitions in 4H silicon carbide

Celebi Y. G., Lichti R. L., Bani-Salameh H. N., Meyer A. G., Carroll B. R., Vernon J. E., King P. J. C., Cox S. F. J.

Physica B: Condensed Matter, cilt.404, ss.845-848, 2009 (SCI-Expanded)

- XIII. **Diamagnetic states in germanium studied by the photo-excited TF-mu SR measurements**  
 Fan I., Chow K. H., Hitti B., Mansour A. I., Scheuermann , MacFarlane W. A., Schultz B. E., Egilmez M., Jung J., Celebi Y. G., et al.  
*PHYSICA B-CONDENSED MATTER*, cilt.404, ss.849-851, 2009 (SCI-Expanded)
- XIV. **Dynamics of T-site muonium states in gallium phosphide**  
 Vernon J. E., Carroll B. R., Bani-Salameh H. N., Lichti R. L., Celebi Y. G., Fan I., Mansour A. I., Chow K. H.  
*PHYSICA B-CONDENSED MATTER*, cilt.404, ss.820-823, 2009 (SCI-Expanded)
- XV. **Muonium acceptor states in high GeSi<sub>1-x</sub>Ge<sub>x</sub> alloys**  
 Carroll B. R., Lichti R. L., King P. J. C., Celebi Y. G., Yonenaga I., Chow K. H.  
*PHYSICA B-CONDENSED MATTER*, cilt.404, ss.812-815, 2009 (SCI-Expanded)
- XVI. **The donor nature of muonium in undoped, heavily n-type and p-type InAs**  
 King P. D. C., Veal T. D., McConville C. F., King P. J. C., Cox S. F. J., Celebi Y. G., Lichti R. L.  
*Journal of Physics Condensed Matter*, cilt.21, sa.7, 2009 (SCI-Expanded)
- XVII. **Muonium transitions in 4H silicon carbide**  
 ÇELEBİ Y. G., Lichti R. L., Bani-Salameh H. N., Carroll B. R., Meyer , Vernon J. E., King P. J. C., Cox S. F. J.  
*PHYSICA B-CONDENSED MATTER*, sa.404, 2009 (SCI-Expanded)
- XVIII. **The donor nature of muonium in undoped, heavily n-type and p-type InAs**  
 King P. D. C., Veal T. D., McConville C. F., King P. J. C., Cox S. F. J., ÇELEBİ Y. G., Lichti R. L.  
*JOURNAL OF PHYSICS-CONDENSED MATTER*, sa.21, 2009 (SCI-Expanded)
- XIX. **Influence of photoexcitation on the diamagnetic muonium states in Ge studied via their precession signatures**  
 Fan I., Chow K. H., Hitti B., Scheuermann R., Mansour A. I., MacFarlane W. A., Schultz B. E., Egilmez M., Jung J., Celebi Y. G., et al.  
*PHYSICAL REVIEW B*, cilt.78, sa.15, 2008 (SCI-Expanded)
- XX. **Muonium defect states and ionization energies in SiGe alloys**  
 King P. J. C., Lichti R. L., Carroll B. R., Celebi Y. G., Chow K. H., Yonenaga I.  
*PHYSICA B-CONDENSED MATTER*, cilt.401, ss.617-620, 2007 (SCI-Expanded)
- XXI. **Diffusion and trapping of positively charged muonium in InAs**  
 Lichti R. L., Vernon J. E., Carroll B. R., Celebi Y. G., King P. J. C., Cox S. F. J.  
*PHYSICA B-CONDENSED MATTER*, cilt.401, ss.627-630, 2007 (SCI-Expanded)
- XXII. **Charge-state transitions of muonium in 6H silicon carbide**  
 Bani-Salameh H. N., Meyer A. G., Carroll B. R., Lichti R. L., Celebi Y. G., Chow K. H., King P. J. C., Cox S. F. J.  
*PHYSICA B-CONDENSED MATTER*, cilt.401, ss.631-634, 2007 (SCI-Expanded)
- XXIII. **Dynamics of positively charged muonium centers in indium nitride**  
 Celebi Y. G., Lichti R. L., Coss B. E., Cox S. F. J.  
*PHYSICAL REVIEW B*, cilt.74, sa.24, 2006 (SCI-Expanded)
- XXIV. **Diffusion and conversion dynamics for neutral muonium in aluminum nitride**  
 Bani-Salameh H. N., Lichti R. L., Celebi Y. G., Cox S. F. J.  
*PHYSICAL REVIEW B*, cilt.74, sa.24, 2006 (SCI-Expanded)
- XXV. **Anisotropic muonium centers in aluminum nitride**  
 Bani-Salameh H. N., ÇELEBİ Y. G., Cox S. F. J., Lichti R. L.  
*PHYSICA B-CONDENSED MATTER*, cilt.374, ss.372-375, 2006 (SCI-Expanded)
- XXVI. **Muonium states and dynamics in 4H and 6H silicon carbide**  
 Bani-Salameh H. N., ÇELEBİ Y. G., Chow K. H., Coss B., Cox S., Lichti R.  
*PHYSICA B-CONDENSED MATTER*, cilt.374, ss.368-371, 2006 (SCI-Expanded)
- XXVII. **dc conduction properties of TlSbSe<sub>2</sub> crystals**  
 Kalkan N., Yildirim S., Deger D., Ulutas K., Celebi Y.  
*MATERIALS RESEARCH BULLETIN*, cilt.40, sa.6, ss.936-941, 2005 (SCI-Expanded)
- XXVIII. **Diffusion and trapping of Mu in the III-V nitrides**  
 Lichti R., Celebi Y. G., Cottrell S., Cox S., Davis E.  
*Journal of Physics Condensed Matter*, cilt.16, sa.40, 2004 (SCI-Expanded)

- XXIX. Diffusion and trapping of Mu in the III-V nitrides**  
Lichti R. L., ÇELEBİ Y. G., Cottrell S. P., Cox S. F. J., Davis E. A.  
JOURNAL OF PHYSICS-CONDENSED MATTER, sa.16, ss.4721-4738, 2004 (SCI-Expanded)
- XXX. Location of the hydrogen donor in InN: Evidence from muonium results**  
Lichti R., Celebi Y. G., Cox S., Davis E.  
Journal of Physics Condensed Matter, cilt.16, sa.3, ss.325-331, 2004 (SCI-Expanded)
- XXXI. Location of the hydrogen donor in InN: evidence from muonium results**  
Lichti R. L., ÇELEBİ Y. G., Cox S. F. J., Davis E. A.  
JOURNAL OF PHYSICS-CONDENSED MATTER, sa.16, ss.325-331, 2004 (SCI-Expanded)
- XXXII. Muonium (hydrogen) defect centers in indium nitride**  
ÇELEBİ Y. G., Davis E. A., Lichti R. L., Cox S. F. J.  
PHYSICA B-CONDENSED MATTER, sa.340, 2003 (SCI-Expanded)
- XXXIII. Trapping of mobile Mu centers in single crystal AlN**  
Lichti R. L., ÇELEBİ Y. G., Chow K. H., Hitti , Cox S. F. J.  
PHYSICA B-CONDENSED MATTER, sa.340, ss.430-433, 2003 (SCI-Expanded)
- XXXIV. Trapping of mobile Mu centers in single crystal AlN**  
Lichti R., Celebi Y. G., Chow K., Hitti B., Cox S.  
PHYSICA B-CONDENSED MATTER, cilt.340, ss.430-433, 2003 (SCI-Expanded)
- XXXV. The electrical activity of hydrogen and muonium in silicon at high temperatures**  
Celebi Y. G., Cox S., Davis E., Lichti R.  
PHYSICA B-CONDENSED MATTER, cilt.340, ss.641-645, 2003 (SCI-Expanded)
- XXXVI. Muonium-acceptor interactions in gallium phosphide**  
Lichti R. L., Chow K. H., Davis E. A., Hitti , ÇELEBİ Y. G., Cox S. F. J.  
PHYSICA B-CONDENSED MATTER, sa.326, ss.167-170, 2003 (SCI-Expanded)
- XXXVII. Muonium-acceptor interactions in gallium phosphide**  
Lichti R., Chow K., Davis E., Hitti B., Celebi Y. G., Cox S.  
Physica B: Condensed Matter, cilt.326, ss.167-170, 2003 (SCI-Expanded)
- XXXVIII. Shallow donor states of hydrogen in II-VI oxide and chalcogenide semiconductors, modelled by muon spectroscopy**  
Cox S., Cottrell S., King P., Lord J., Alberto H., de Campos N., Gil J., Duarte J., Vilao R., Davis E., et al.  
PHYSICS OF SEMICONDUCTORS 2002, PROCEEDINGS, cilt.171, ss.69-75, 2003 (SCI-Expanded)
- XXXIX. The CERN Axion Solar Telescope (CAST)**  
Aalseth C., Arik E., Autiero D., Avignone F., Barth K., Bowyer S., Brauninger H., Brodzinski R., Carmona J., Cebrian S., et al.  
NUCLEAR PHYSICS B-PROCEEDINGS SUPPLEMENTS, cilt.110, ss.85-87, 2002 (SCI-Expanded)
- XL. Electrical properties of fluorinated amorphous carbon films**  
Biswas N., Harris H., Wang X., Celebi G., Temkin H., Gangopadhyay S.  
JOURNAL OF APPLIED PHYSICS, cilt.89, sa.8, ss.4417-4421, 2001 (SCI-Expanded)
- XLI. Fouling of heat-transfer surfaces in oil-fired boilers for domestic heating**  
Butcher T., Lee S., ÇELEBİ Y. G., Litzke W.  
JOURNAL OF THE INSTITUTE OF ENERGY, cilt.70, sa.485, ss.151-159, 1997 (SCI-Expanded)

## Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. A Comparison Of Characteristics of Heterojunction pin Solar Cells Based On Dilute Bismide And Dilute Nitride Alloys**  
Muhammedgulyev A., SARCAN F., Göksel Ö., KINACI B., DÖNMEZ Ö., ÇELEBİ Y. G., EROL A.  
International Conference On Condensed Matter And Materials science, Adana, Türkiye, 11 - 15 Ekim 2017, ss.25
- II. Transition dynamics for Mu acceptor states in Si 1-x Ge x alloys**  
Jayarathna G., Lichti R. L., Mengyan P. W., Celebi Y. G., Baker B. B., Carroll B. R., Yonenaga I.

- 2014 IEEE International Conference on Automation Science and Engineering, CASE 2014, Taipei, Tayvan, 18 - 22 Ağustos 2014, cilt.1583, ss.56-59
- III. Magnetic fields and fluctuations in weakly Mn doped ZnGeP 2**  
Mengyan P. W., Lichti R. L., Celebi Y. G., Baker B. B., Carroll B. R., Catak E., Zawilski K. T., Schunemann P. G.  
2014 IEEE International Conference on Automation Science and Engineering, CASE 2014, Taipei, Tayvan, 18 - 22 Ağustos 2014, cilt.1583, ss.190-194
- IV. Motional characteristics of positively charged muonium defects in In 2 O 3**  
Baker B. B., Celebi Y. G., Lichti R. L., Mengyan P. W., Catak E.  
2014 IEEE International Conference on Automation Science and Engineering, CASE 2014, Taipei, Tayvan, 18 - 22 Ağustos 2014, cilt.1583, ss.323-326
- V. Initial Study of Positively Charged Muonium Motion in ZnO, CdO, TiO2, and SnO2**  
Baker B. B., Celebi Y. G., Lichti R. L., Bani-Salameh H. N., Mengyan P. W., Carroll B. R.  
12th International Conference on Muon Spin Rotation, Relaxation and Resonance (muSR), Cancun, Meksika, 16 - 20 Mayıs 2011, cilt.30, ss.101-104
- VI. Longitudinal Muon Spin Depolarization in Ge-Rich SiGe Alloys**  
Mengyan P. W., Celebi Y. G., Lichti R. L., Carroll B. R., Baker B. B., Bani-Salameh H. N., Yonenaga I.  
12th International Conference on Muon Spin Rotation, Relaxation and Resonance (muSR), Cancun, Meksika, 16 - 20 Mayıs 2011, cilt.30, ss.214-218
- VII. Motion of Mu(+) in Transparent Conducting Oxides**  
Celebi Y. G., Lichti R. L., Baker B. B., Mengyan P. W., Bani-Salameh H. N.  
12th International Conference on Muon Spin Rotation, Relaxation and Resonance (muSR), Cancun, Meksika, 16 - 20 Mayıs 2011, cilt.30, ss.206-209
- VIII. Structural properties of In-In2O3 composite films”, “11th Europhysical conference on defect in insulating materials**  
Ulutaş H. K., Değer D., Kalkan N., Yıldırım S., Çelebi Y. G., Skarlatos Y., Öveçoğlu L., Genç A.  
11th Europhysical conference on defect in insulating materials, Pecs, Macaristan, 1 - 04 Temmuz 2010, ss.122
- IX. Structural properties of In-In2O3 composite films**  
Ulutas K., Deger D., Kalkan N., Yildirim S., Celebi Y. G., Iskarlatos Y., Öveçoğlu M. L., Genc A.  
11th Europhysical Conference on Defects in Insulating Materials (EURODIM), Pecs, Macaristan, 12 - 16 Temmuz 2010, cilt.15
- X. TlSbSe2 ve TlSbS2 ince filmlerde dielektriksel özellikler ve iletkenlik**  
Yıldırım S., Kalkan N., Ulutaş H. K., Değer D., Çelebi Y. G.  
Türk Fizik Derneği 24. Uluslararası Fizik Kongresi, Malatya, Türkiye, 1 - 04 Eylül 2007, cilt.24, ss.146
- XI. TlSbSe2 Kristallerinde, İnce Filmlerde iletkenlik ve Dielektriksel Özellikler**  
Yıldırım S., Kalkan N., Ulutaş H. K., Ulutaş D., Çelebi Y. G.  
24th International Physics Congress, Malatya, Türkiye, 1 - 04 Ağustos 2007, ss.3-48
- XII. Motion of Muonium (Hydrogen) in the III-V Nitrides**  
ÇELEBİ Y. G.  
PHYSICS OF SEMICONDUCTORS: 27th International Conference on the Physics of Semiconductors - ICPS-27 Date: 26-30 July 2004 Location: Flagstaff, Arizona (USA), Amerika Birleşik Devletleri, 1 - 04 Ocak 2005, sa.772, ss.255-256
- XIII. Motion of muonium (hydrogen) in the III-V nitrides**  
Lichti R., ÇELEBİ Y. G., Cox S., Davis E.  
27th International Conference on the Physics of Semiconductors (ICPS-27), Arizona, Amerika Birleşik Devletleri, 26 - 30 Temmuz 2004, cilt.772, ss.255-256
- XIV. Shallow donor states of hydrogen in II-VI oxide and chalcogenide semiconductors, modelled by muon spectroscopy**  
ÇELEBİ Y. G.  
Proceedings of the 26th International Conference on the Physics of Semiconductors Held in Edinburgh, UK, 29 July-2 August 2002, Birleşik Krallık, 1 - 04 Eylül 2003, ss.69-75

## **Desteklenen Projeler**

ÇELEBİ Y. G., Diğer Uluslararası Fon Programları, MuSR in SiC, 2004 - 2006

## **Metrikler**

Yayın: 55

Atıf (WoS): 341

Atıf (Scopus): 306

H-İndeks (WoS): 8

H-İndeks (Scopus): 8

## **Kongre ve Sempozyum Katılımı Faaliyetleri**

Gordon Research Conference, Defects in Semiconductors August 8-13, 2010 Colby-Sawyer College New London, NH, Katılımcı, New London, Amerika Birleşik Devletleri, 2010

The 25th International Conference on Defects in Semiconductors (ICDS-25) July 20-24, 2009 in St. Petersburg, Russia., Katılımcı, St. Petersburg, Rusya, 2009

The 11th International Conference on Muon Spin Rotation, Relaxation and Resonance, Tsukuba, Japan, 21-25th July 2008, Katılımcı, Tsukuba, Japonya, 2008

24th International Conference on Defects in Semiconductors 22-27 July 2007 Albuquerque, New Mexico USA, Katılımcı, Albuquerque, Amerika Birleşik Devletleri, 2007

## **Burslar**

West Texas Turkish American Association Scholarship, Yabancı Ülkelerin Resmi Kurumları, 1993 - Devam Ediyor  
Yurt Disı Master/Doktora Bursu, Milli Eğitim Bakanlığı, 1990 - Devam Ediyor

## **Akademi Dışı Deneyim**

İstanbul Üniversitesi

Texas Tech Üniversitesi

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İstanbul Üniversitesi

Texas Tech Üniversitesi

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