

## Asst. Prof. Mehmet YILMAZ

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### Education Information

Doctorate, Yildiz Technical University, Faculty Of Arts & Science, Department Of Physics, Turkey 1990 - 1996

Postgraduate, Yildiz Technical University, Faculty Of Arts & Science, Department Of Physics, Turkey 1988 - 1989

Undergraduate, Trakya University, Faculty Of Science, Department Of Physics, Turkey 1982 - 1986

### Dissertations

Doctorate, İKİLİ SIVI ALKALİ METAL ALAŞIMLARININ TERMODİNAMİK ÖZELLİKLERİNİN İNCELENMESİ, Yildiz Technical University, Faculty of Arts & Science, Department of Physics, 1996

Postgraduate, PERCUS-YEVICK DENKLEMİNİN KATI KÜRE ÇÖZÜMÜ VE SIVI METALLERİN YAPI FAKTÖRÜNÜN HESAPLANMASI, Yildiz Technical University, Faculty of Arts & Science, Department of Physics, 1989

### Research Areas

Natural Sciences

### Jury Memberships

Post Graduate, Post Graduate, İstanbul Üniversitesi, June, 2017

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Trakya Üniversitesi, June, 2013

Doctorate, Doctorate, Trakya Üniversitesi, November, 2012

Doctorate, Doctorate, Trakya Üniversitesi, June, 2012

Doctorate, Doctorate, Trakya Üniversitesi, June, 2012

Doctorate, Doctorate, Trakya Üniversitesi, February, 2012

Doctorate, Doctorate, Trakya Üniversitesi, September, 2011

Doctorate, Doctorate, Trakya Üniversitesi, September, 2011

Doctorate, Doctorate, Trakya Üniversitesi, September, 2011

Doctoral Examination, Doctoral Examination, Trakya Üniversitesi, March, 2007

Doctorate, Doctorate, Trakya Üniversitesi, October, 2005

Doctoral Examination, Doctoral Examination, Trakya Üniversitesi, September, 2002

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Freezing in halide salts**  
AKDERE Ü., Yılmaz M., Kavanoz H. B., Taşseven Ç.  
ACTA PHYSICA POLONICA A, vol.113, no.6, pp.1659-1670, 2008 (SCI-Expanded)
- II. **Effective charges and ionicity in molten salts**  
Kavanoz H., Yılmaz M., Gurbuz H., Silbert M.  
PHYSICS AND CHEMISTRY OF LIQUIDS, vol.40, no.1, pp.115-121, 2002 (SCI-Expanded)
- III. **Static structure of a group of trivalent molten salts: An alternative rigid ion model potential**  
Yılmaz M., Gurbuz H., Kavanoz H., Tasseven C., Silbert M.  
HIGH TEMPERATURE MATERIALS AND PROCESSES, vol.20, pp.421-428, 2001 (SCI-Expanded)

## Articles Published in Other Journals

- I. **İkili Sıvı Metal alaşımlarda Basınç Hesaplanması**  
Yılmaz M.  
Yıldız Teknik Üniversitesi, vol.4, pp.43-50, 1995 (Peer-Reviewed Journal)
- II. **Yukowa Etkileşmeli Yüklü Katı Küre Potansiyeli ile 3d Geçiş Metallerinin Sıvı Yapısı**  
KAVANOZ H. B., Yılmaz M., Karagözlü S., Gümüş İ.  
Yıldız Teknik Üniversitesi Dergisi, vol.4, pp.27-32, 1995 (Non Peer-Reviewed Journal)
- III. **MCl<sub>2</sub> Tipi Tuzların Sıvı-Katı Faz Geçişleri**  
Dalgıç S., Yılmaz M., Gümüş İ. A.  
Yıldız Teknik Üniversitesi, vol.2, pp.96-104, 1993 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **STRUCTURAL, ELECTRONIC AND OPTICAL PROPERTIES OF DOPED MONOLAYER TLS**  
Çalışkan M., Yılmaz M., Nazıkkol S.  
TURKISH PHYSICAL SOCIETY 40th INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 2 - 06 September 2024, pp.174
- II. **Mn doping effect on the interactions of Furan with molecular magnets of MnAu<sub>7</sub> clusters**  
Dalgıç S. Ş., Yılmaz M., Kandemirli F.  
10th International Conference on Materials Science and Nanotechnology for Next Generation, MSNG2023, Kayseri, Turkey, 27 - 29 September 2023, pp.113
- III. **Mn doping effect on the non-linear optical properties of 2D MnAu<sub>7</sub> Gold clusters by DFT calculations**  
Dalgıç S. Ş., Yılmaz M., Kandemirli F.  
TURKISH PHYSICAL SOCIETY 39th INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 31 August - 04 September 2023, pp.89
- IV. **HCP GOLD-RUTHENIUM (Au-Ru) NANOPARTICLES BY MOLECULAR DYNAMICS SIMULATIONS**  
Yılmaz M., Dalgıç S. Ş.  
Turkish Physical Society 38th International Physics Congress, Muğla, Turkey, 31 August - 04 September 2022, pp.75
- V. **A Non-Carcinogenic Additive for Improving the Ionizing Radiation Shielding Performance of Epoxy: Silver Microparticles**  
Yılmaz M., Kalkan N. E., İç S., Karabul Y., Kılıç M., Güven Özdemir Z.  
TURKISH PHYSICAL SOCIETY 37TH INTERNATIONAL PHYSICS CONGRESS, Muğla, Turkey, 1 - 05 September 2021, pp.234
- VI. **Investigation of the structure of sodium alginate (SA)/Bifidobacterium animalis subsp. lactis BB-12 probiotic biohybrid films**  
Yılmaz M., Denkdaş C., Yılmaz Baysoy D., Bozdoğan A., Bozkurt H. S., Bozkurt K., Özdemir O.

Turkish Physical Society 37th International Physics Congress, Muğla, Turkey, 1 - 05 September 2021, pp.251

**VII. INVESTIGATION OF EQUIATOMIC PALLADIUM-RUTHENIUM (Pd-Ru) NANOPARTICLES BY MOLECULAR DYNAMICS SIMULATIONS**

Yılmaz M., Dalgıç S. Ş.

Turkish Physical Society 37th International Physics Congress, Muğla, Turkey, 1 - 05 September 2021, pp.264

**VIII. Comparison of Undoped and Doped Single Crystal and Grain Boundary CdTe Structure**

Çalışkan M., Öztoprak A., Yılmaz M., Günay S. D., Taşseven Ç.

Turkish Physical Society 35th International Physics Congress, Muğla, Turkey, 4 - 08 September 2019, vol.1, no.1, pp.335

**IX. Metal/Insulating Poly(vinyl acetate) Latex with Silicon Surfactant /Si MIS Structure**

Çalışkan M., Kuruoğlu F., Süngü Mısırlıoğlu B., Serin M., Yılmaz M., Saraç Özkan A.

Turkish Physical Society 35rd International Physical Congress, MUĞLA, Turkey, Muğla, Turkey, 4 - 08 September 2019, pp.344-0

**X. A Monte Carlo Simulation Study of Na<sub>2</sub>Si<sub>3</sub>O<sub>7</sub> / Bi<sub>2</sub>O<sub>3</sub> / B<sub>2</sub>O<sub>3</sub> /Sb<sub>2</sub>O<sub>3</sub> quaternary glassy composites for radiation shielding**

Akçalı Ö., Kavanoz H. B., Toker O., Bilmez B., Çağlar M., Yılmaz M., İçelli O.

Eighth Bozok Workshop, Yozgat, Turkey, 25 - 27 July 2019, pp.1

**XI. An investigation of ternary composites as gamma ray shielding material by Monte Carlo simulation and BXCUM**

Kavanoz H. B., Akçalı Ö., Toker O., Bilmez B., Yılmaz M., Çağlar M., İçelli O.

Eighth Bozok Science Workshop, Yozgat, Turkey, 25 - 27 July 2019

**XII. Study on Ag<sub>3</sub>Si Lattice Parameter Evolution with Temperature**

Öztek H. Ö., Yılmaz M., Kavanoz H. B.

Turkish Physical Society 34th International Physics Congress, Muğla, Turkey, 5 - 09 September 2018, pp.493-0

**XIII. Preliminary Results of Calculation of Ionic Conductivity of Molten Ag-Based Superionics**

Yılmaz M., Öztek H. Ö., Kavanoz H. B.

Turkish Physical Society 32nd International Physics Congress, Muğla, Turkey, 6 - 09 September 2016, pp.381-0

**XIV. Preliminary results of structural and transport properties of AgI Ag<sub>2</sub>S and Ag<sub>3</sub>SI in molten phase by molecular dynamics simulation**

Öztek H. Ö., Yılmaz M., Kavanoz H. B.

9th International Physics Conference of the Balkan Physical Union, İstanbul, Turkey, 24 - 27 August 2015, pp.447

**XV. Preliminary results of Lindemann Criteria Calculation Ag Based Superionics**

Yılmaz M., Öztek H. Ö., Kavanoz H. B.

Turkish Physical Society 31 Th International Physics Congress, Muğla, Turkey, 21 - 24 July 2014, pp.424-0

**XVI. FIRST PRINCIPLE CALCULATION OF STROMEYERITE**

Öztek H., Ilgaz I. P., Yılmaz M., Kavanoz H. B., İçelli O., Yalçın Z.

30. ULUSLARARASI FİZİK KONGRESİ, İstanbul, Turkey, 2 - 05 September 2013, pp.543

**XVII. First Principles Calculation of Stromeayerite, AgCuS**

Öztek H. Ö., Yılmaz M., Kavanoz H. B., İçelli O., Yalçın Z.

Turkish Physical Society 30 Th International Physics Congress, Muğla, Turkey, 2 - 05 September 2013, pp.542

**XVIII. A Study of Low Temperature Thermal Expansion and Structural Behaviour of Stromeayerite AgCuS**

Akdere Ü., Öztek H. Ö., Yılmaz M., Kavanoz H. B.

Turkish Physical Society 29 International Physics Congress, Muğla, Turkey, 5 - 08 September 2012, pp.655

**XIX. Thermophysical Properties of Liquid Thallium Halides (TlBr, TlCl, TlI) from Hypernetted Chain Theory**

Akdere Ü., Yılmaz M., Kavanoz H. B., Öztek H. Ö.

Turkish Physical Society 28 International Physics Congress, Muğla, Turkey, 6 - 09 September 2011, pp.825

**XX. Molecular dynamics simulation of thermal properties of Ag<sub>3</sub>SI**

Öztek H., KAVANOZ H. B., AKDERE Ü., YILMAZ M., Taşseven Ç.

7th International Conference of the Balkan Physical Union, Alexandroupoli, Greece, 9 - 13 September 2009, vol.1203, pp.252-254

- XXI. **Hypernetted Chain Theory and Molecular Dynamic Simulation of Static Structure and Ionic Transport in Molten UO<sub>2</sub> and UCl<sub>3</sub>**  
Günay S. D., Akdere Ü., Kavanoz H. B., Yılmaz M., Taşseven Ç.  
Turkish Physical Society 23th Conference, Muğla, Turkey, 13 - 16 September 2005
- XXII. **Static Criteria for Freezing of Liquid Halide Salts**  
Akdere Ü., Yılmaz M., Kavanoz H. B., Taşseven Ç.  
Turkish Physical Society 23 International Physics Congress, Muğla, Turkey, 13 - 16 September 2005, pp.641
- XXIII. **Static Criteria for Freezing of Liquid Halide Salts**  
Yılmaz M., Akdere Ü., Kavanoz H. B., Taşseven Ç.  
Turkish Physical Society 23th International Physics Congress, Muğla, Turkey, 13 - 16 September 2005, pp.641-0
- XXIV. **Erimiş UCl<sub>3</sub> ün Yapısal Özelliklerinin Kurumsal Tayini**  
Akdere Ü., Kavanoz H. B., Yılmaz M., Taşseven Ç.  
Türk Fizik Derneği 22. Fizik Kongresi, Muğla, Turkey, 14 - 17 September 2004, pp.387-0
- XXV. **İyonik Sıvıların Statik Dielektrik Fonksiyonu**  
Yılmaz M., Kavanoz H. B., Akdere Ü., Taşseven Ç.  
Türk Fizik Derneği 22. Fizik Kongresi, Muğla, Turkey, 14 - 17 September 2004, pp.515-0
- XXVI. **Thermodynamic Properties Associated with Changes in Shape of Components in Binary Mixtures**  
Yılmaz M., Gürbüz H. H.  
First Hellenic-Turkish International Physics Conference, Komotini, Greece, 10 - 15 September 2001, pp.413-419
- XXVII. **Static Structure of 3:1 Molten Salts**  
Yılmaz M., Kavanoz H. B., Gürbüz H. H.  
Fourth General Conference of the Balkan Physical Union, Veliko-Tarnovo, Bulgaria, 22 - 27 August 2000, pp.126-0
- XXVIII. **Effective Charges and Ionicity in Molten Salts**  
Kavanoz H. B., Yılmaz M., Gürbüz H.  
BPU-4 4. General Conference of the Balkan Physical Union, Veliko Turnovo, Bulgaria, 22 - 25 August 2000, pp.44
- XXIX. **Effective Charges and Ionicity in Molten Salts**  
Kavanoz H. B., Yılmaz M., Gürbüz H. H.  
Fourth General Conference of the Balkan Physical Union, Veliko-Tarnovo, Bulgaria, 22 - 27 August 2000, pp.111-0
- XXX. **Investigation of The Structure of a number of 3:1 Molten Salts**  
Yılmaz M., Gürbüz H. H., Silbert M.  
Trakya Workshop on Liquid State Physics, Edirne, Turkey, 31 August - 04 September 1999, pp.1
- XXXI. **Static Structure of 3:1 Molten Salts**  
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4th Liquid Matter Conference, Granada, Spain, 3 - 07 July 1999, vol.23, pp.24-0
- XXXII. **Thermodynamic Calculations for Liquid Sodium-Potassium**  
Yılmaz M., Karagözlü S.  
İstanbul Teknik Üniversitesi 4. İstatistik Fizik Günleri, İstanbul, Turkey, 17 - 18 July 1997, vol.23, no.1, pp.223-0
- XXXIII. **Bridge Functions of Molten Salts from Molecular Dynamic Simulations**  
Taşseven Ç., Kavanoz H. B., Yılmaz M.  
Second International Kaş-School on Liquid State Physics, Antalya, Turkey, 15 - 25 September 1998, pp.20-24
- XXXIV. **Integral Equations Calculations of the Static Structure of Molten MX<sub>3</sub> Systems**  
Yılmaz M., Kavanoz H. B., Taşseven Ç.  
Second International Kaş-School on Liquid State Physics, Antalya, Turkey, 15 - 25 September 1998, pp.10-15
- XXXV. **Bulk Modulus Calculations for Liquid Binary Alloys**  
Yılmaz M., Karagözlü S.  
İstanbul Teknik Üniversitesi 3. İstatistik Fizik Günleri, İstanbul, Turkey, 18 - 19 July 1996, vol.21, no.1, pp.177
- XXXVI. **Percus-Yevick Denklemine Katı Küre çözümü ve Sıvı Metallerin Yapı Faktörünün Hesaplanması**  
Yılmaz M.  
II. Trakya Teorik Fizik Seminerleri, Edirne, Turkey, 26 - 29 May 1989, pp.1-0
- XXXVII. **Metal Tuzlarının Kristalleşmesinde Süper İyonik İletkenlik Davranışları**  
Akdeniz K. G., Dalgıç S., Gümüş İ. A., Gürbüz H. H., Karagözlü S., Kavanoz H. B., Yılmaz M.

Türk Fizik Derneđi I. Ulusal Yođun Madde Fiziđi Kongresi, Muđla, Turkey, 27 - 29 September 1988, pp.29-0

XXXVIII. **MCl2 Tipi Tuzların Kristalleşmesi**

Yılmaz M., Dalgıç S., Gümüş İ. A.

Türk Fizik Derneđi I. Ulusal Yođun Madde Fiziđi Kongresi, Muđla, Turkey, 27 - 29 September 1988, pp.32-0

## **Metrics**

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