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### Jury Memberships

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2021

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2021

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, August, 2021

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, June, 2021

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, June, 2021

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, June, 2021

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, January, 2021

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2020

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, July, 2020

Doctorate, Doctorate, Orta Doğu Teknik Üniversitesi, July, 2020

### Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Development and additive manufacturing of oxide dispersion strengthened inconel 718: Thermochemical and experimental studies**  
Yesim Yalcin M., Bora Derin D., AYDOĞAN GÜNGÖR E.  
Journal of Alloys and Compounds, vol.914, 2022 (Journal Indexed in SCI Expanded)
- II. **Selective laser melting of Nano-TiN reinforced 17-4 PH stainless steel: Densification, microstructure and mechanical properties**  
Ozsoy A., AYDOĞAN GÜNGÖR E., DERİCİOĞLU A. F.  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING, vol.836, 2022 (Journal Indexed in SCI)
- III. **In-situ radiation response of additively manufactured modified Inconel 718 alloys**  
AYDOĞAN GÜNGÖR E., El-Atwani O., Erdem B., Li M., Devaraj A., Koc B., Chen W. . , Maloy A.  
ADDITIVE MANUFACTURING, vol.51, 2022 (Journal Indexed in SCI)
- IV. **Enhancement of Nanostructured Ferritic Alloy 14YWT Properties via Heat Treatment for Post-Consolidation Processing**  
Rietema C. J. , Saleh T. A. , Hoelzer D. T. , Eftink B. P. , Aydogan E., Clarke K. D. , Clarke A. J. , Maloy S. A.  
Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, vol.52, no.7, pp.2821-2829, 2021 (Journal Indexed in SCI Expanded)
- V. **Tensile properties and microstructure of additively manufactured Grade 91 steel for nuclear applications**  
Eftink B. P. , Vega D. A. , El Atwani O., Sprouster D. J. , Yoo Y. S. J. , Steckley T. E. , Aydogan E., Cady C. M. , Al-Sheikhly M., Lienert T. J. , et al.  
Journal of Nuclear Materials, vol.544, 2021 (Journal Indexed in SCI)

- VI. **In Situ Micro-Pillar Compression to Examine Radiation-Induced Hardening Mechanisms of FeCrAl Alloys**  
Cui Y., Aydogan E., Gigax J. G. , Wang Y., Misra A., Maloy S. A. , Li N.  
Acta Materialia, vol.202, pp.255-265, 2021 (Journal Indexed in SCI)
- VII. **In-situ observation of nano-oxide and defect evolution in 14YWT alloys**  
Aydogan E., El-Atwani O., Li M., Maloy S.  
Materials Characterization, vol.170, 2020 (Journal Indexed in SCI)
- VIII. **Nitrogen effects on radiation response in 12Cr ferritic/martensitic alloys**  
Aydogan E., Gigax J. G. , Parker S. S. , Eftink B. P. , Chancey M., Poplawsky J., Maloy S. A.  
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- IX. **Damage relief of ion-irradiated Inconel alloy 718 via annealing**  
Fincher C. D. , Turman H., French A., Chancey M., Gigax J., Aydogan E., Zhao D., Yadav D., Xie K., Wang Y., et al.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.479, pp.157-162, 2020 (Journal Indexed in SCI)
- X. **alpha ' formation kinetics and radiation induced segregation in neutron irradiated 14YWT nanostructured ferritic alloys**  
Aydogan E., Martinez E., March K., El-Atwani O., Krumwiede D. L. , Hosemann P., Saleh T., Maloy S. A.  
SCIENTIFIC REPORTS, vol.9, 2019 (Journal Indexed in SCI)
- XI. **Impact of composition modification induced by ion beam Coulomb-drag effects on the nanoindentation hardness of HT9**  
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NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.444, pp.68-73, 2019 (Journal Indexed in SCI)
- XII. **Response of 14YWT alloys under neutron irradiation: A complementary study on microstructure and mechanical properties**  
Aydogan E., Weaver J. S. , Carvajal-Nunez U., Schneider M. M. , Gigax J. G. , Krumwiede D. L. , Hosemann P., Saleh T. A. , Mara N. A. , Hoelzer D. T. , et al.  
ACTA MATERIALIA, vol.167, pp.181-196, 2019 (Journal Indexed in SCI)
- XIII. **Effect of High-Density Nanoparticles on Recrystallization and Texture Evolution in Ferritic Alloys**  
Aydogan E., Rietema C. J. , Carvajal-Nunez U., Vogel S. C. , Li M., Maloy S. A.  
CRYSTALS, vol.9, no.3, 2019 (Journal Indexed in SCI)
- XIV. **Unprecedented irradiation resistance of nanocrystalline tungsten with equiaxed nanocrystalline grains to dislocation loop accumulation**  
El-Atwani O., Esquivel E., Aydogan E., Martinez E., Baldwin J. K. , Li M., Uberuaga B. P. , Maloy S. A.  
ACTA MATERIALIA, vol.165, pp.118-128, 2019 (Journal Indexed in SCI)
- XV. **Microstructure and mechanical properties of FeCrAl alloys under heavy ion irradiations**  
Aydogan E., Weaver J. S. , Maloy S. A. , El-Atwani O., Wang Y. Q. , Mara N. A.  
JOURNAL OF NUCLEAR MATERIALS, vol.503, pp.250-262, 2018 (Journal Indexed in SCI)
- XVI. **Loop and void damage during heavy ion irradiation on nanocrystalline and coarse grained tungsten: Microstructure, effect of dpa rate, temperature, and grain size**  
El-Atwani O., Esquivel E., EFE M., Aydogan E., Wang Y. Q. , Martinez E., Maloy S. A.  
Acta Materialia, vol.149, pp.206-219, 2018 (Journal Indexed in SCI Expanded)
- XVII. **High temperature microstructural stability and recrystallization mechanisms in 14YWT alloys**  
Aydogan E., El-Atwani O., Takajo S., Vogel S. C. , Maloy S. A.  
ACTA MATERIALIA, vol.148, pp.467-481, 2018 (Journal Indexed in SCI)
- XVIII. **Detailed transmission electron microscopy study on the mechanism of dislocation loop rafting in tungsten**  
El-Atwani O., Aydogan E., Esquivel E., EFE M., Wang Y. Q. , Maloy S. A.  
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- XIX. **Effect of tube processing methods on microstructure, mechanical properties and irradiation response of 14YWT nanostructured ferritic alloys**

- Aydogan E., Maloy S. A., Anderoglu O., Sun C., Gigax J. G., Shao L., Garner F. A., Anderson I. E., Lewandowski J. J.  
ACTA MATERIALIA, vol.134, pp.116-127, 2017 (Journal Indexed in SCI)
- XX. **Effect of self-ion irradiation on the microstructural changes of alloy EK-181 in annealed and severely deformed conditions**  
Aydogan E., Chen T., Gigax J. G., Chen D., Wang X., Dzhumaev P. S., Emelyanova O. V., Ganchenkova M. G., Kalin B. A., Leontiva-Smirnova M., et al.  
JOURNAL OF NUCLEAR MATERIALS, vol.487, pp.96-104, 2017 (Journal Indexed in SCI)
- XXI. **Stability of nanosized oxides in ferrite under extremely high dose self ion irradiations**  
Aydogan E., Almirall N., Odette G. R., Maloy S. A., Anderoglu O., Shao L., Gigax J. G., Price L., Chen D., Chen T., et al.  
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- XXII. **Characterization of phase properties and deformation in ferritic-austenitic duplex stainless steels by nanoindentation and finite element method**  
Schwarm S. C., Kolli R. P., Aydogan E., Mburu S., Ankem S.  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING, vol.680, pp.359-367, 2017 (Journal Indexed in SCI)
- XXIII. **Beam-contamination-induced compositional alteration and its neutron-atypical consequences in ion simulation of neutron-induced void swelling**  
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- XXIV. **Radiation response of alloy T91 at damage levels up to 1000 peak dpa**  
Gigax J. G., Chen T., Kim H., Wang J., Price L. M., Aydogan E., Maloy S. A., Schreiber D. K., Toloczko M. B., Garner F. A., et al.  
JOURNAL OF NUCLEAR MATERIALS, vol.482, pp.257-265, 2016 (Journal Indexed in SCI)
- XXV. **Temperature dependent dispersoid stability in ion-irradiated ferritic-martensitic dual-phase oxide-dispersion-strengthened alloy: Coherent interfaces vs. incoherent interfaces**  
Chen T., Gigax J. G., Price L., Chen D., Ukai S., Aydogan E., Maloy S. A., Garner F. A., Shao L.  
ACTA MATERIALIA, vol.116, pp.29-42, 2016 (Journal Indexed in SCI)
- XXVI. **Effect of tube processing methods on the texture and grain boundary characteristics of 14YWT nanostructured ferritic alloys**  
Aydogan E., Pal S., Anderoglu O., Maloy S. A., Vogel S. C., Odette G. R., Lewandowski J. J., Hoelzer D. T., Anderson I. E., Rieken J. R.  
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- XXVII. **Effect of shock loading on the microstructure, mechanical properties and grain boundary characteristics of HT-9 ferritic/martensitic steels**  
Aydogan E., Anderoglu O., Maloy S. A., Livescu V., Gray G. T., Perez-Bergquist S., Williams D. J.  
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING, vol.651, pp.75-82, 2016 (Journal Indexed in SCI)
- XXVIII. **Surface modification of low activation ferritic-martensitic steel EK-181 (Rusfer) by high temperature pulsed plasma flows**  
Emelyanova O. V., Dzhumaev P. S., Yakushin V. L., Kalin B. A., Ganchenkova M. G., Khein A. T., Leontyeva-Smirnova M. V., Valiev R. Z., Enikeev N. A., Shao L., et al.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.365, pp.218-221, 2015 (Journal Indexed in SCI)
- XXIX. **Microstructural changes and void swelling of a 12Cr ODS ferritic-martensitic alloy after high-dpa self-ion irradiation**  
Chen T., Aydogan E., Gigax J. G., Chen D., Wang J., Wang X., Ukai S., Garner F. A., Shao L.  
JOURNAL OF NUCLEAR MATERIALS, vol.467, pp.42-49, 2015 (Journal Indexed in SCI)
- XXX. **The influence of ion beam rastering on the swelling of self-ion irradiated pure iron at 450 degrees C**  
Gigax J. G., Aydogan E., Chen T., Chen D., Shao L., Wu Y., Lo W. Y., Yang Y., Garner F. A.  
JOURNAL OF NUCLEAR MATERIALS, vol.465, pp.343-348, 2015 (Journal Indexed in SCI)

- XXXI. **Morphology and magnetic properties of barium hexaferrite ceramics synthesized in x wt% NaCl-(100-x) wt% KCl molten salts**  
Aydogan E., Kaya S., DERİCİOĞLU A. F.  
Ceramics International, vol.40, pp.2331-2336, 2014 (Journal Indexed in SCI Expanded)

## Articles Published in Other Journals

- I. **Development of advanced low N ferritic/martensitic steel for reactor applications**  
Rietema C., Clarke A., Saleh T., AYDOĞAN GÜNGÖR E., Anderoglu O., Clarke K.  
Transactions of American Nuclear Society, 2018 (Refereed Journals of Other Institutions)
- II. **Post irradiation examination of fast neutron irradiated 14YWT tubes at nuclear science user facilities**  
Saleh T., Krumwiede D., AYDOĞAN GÜNGÖR E., Quintana M., Romero T., Hosemann P., Maloy S.  
Transactions of American Nuclear Society, 2017 (Refereed Journals of Other Institutions)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Radiation effects on HT9 tempered martensitic steels as a function of nitrogen content and deformation**  
AYDOĞAN GÜNGÖR E., gigax j., Parker S., Clausen B., Brown D., Wang Y., Chancey M., Eftink B., Maloy S.  
TMS 2019, 10 - 14 March 2019
- II. **Additively manufactured grade 91 steel for reactor applications**  
Eftink B., Vega D., Yoo Y., Janish M., AYDOĞAN GÜNGÖR E., Steckley T., Ortega M., Cady C., Lienert T., Maloy S.  
TMS 2019, 10 - 14 March 2019
- III. **Neutron irradiation studies on 14YWT nanostructured ferritic alloys**  
AYDOĞAN GÜNGÖR E., Martinez Saez E., Weaver J., gigax j., Shao L., Garner F., Maloy S.  
TMS 2019, 10 - 14 March 2019
- IV. **Microstructure and mechanical properties of high dose self-ion irradiated nanostructured ferritic alloys produced by various processing methods**  
AYDOĞAN GÜNGÖR E., Anderoglu O., Maloy S., Shao L., gigax j., Price L., Chen D., Odette R., Hoelzer D., Lewandowski J., et al.  
THERMEC 2018, 8 - 13 July 2018
- V. **Radiation Effects on HT9 Tempered Martensitic Steels as a Function of Initial Dislocation Density**  
AYDOĞAN GÜNGÖR E., Clausen B., Brown D., Wang Y., Eftink B., Chen D., Maloy S.  
TMS 2018, 11 - 15 March 2018
- VI. **Progress in Developing High Dose Radiation Tolerant Ferritic Steels for Nuclear Applications**  
Maloy S., AYDOĞAN GÜNGÖR E., Eftink B., Saleh T., Toloczko M., Byun T. S., Lavender C., Odette R., Alam M., Pal S., et al.  
TMS 2018, 11 - 15 March 2018
- VII. **Development of advanced low N ferritic/martensitic steel for reactor applications**  
Rietema C., Clarke A., Saleh T., Aydogan E., Anderoglu O., Clarke K.  
2018 Transactions of the American Nuclear Society, ANS 2018, Florida, United States Of America, 11 - 15 November 2018, vol.119, pp.512-514
- VIII. **Effect of processing methods on texture evolution and recrystallization studies on 14YWT nanostructured ferritic alloys**  
AYDOĞAN GÜNGÖR E., Vogel S., Takajo S., Maloy S., Yablinski C.  
ICOTOM 18, 5 - 10 November 2017
- IX. **Ion Irradiations and Microstructural Characterization of Optimized FeCrAl Cladding Tubes**  
AYDOĞAN GÜNGÖR E., Weaver J., Maloy S., Wang Y., Mara N., ElAtwani O.

SES 2017, 25 - 28 July 2017

- X. **Stability of 14YWT nanostructured ferritic alloys under irradiation and thermal aging**  
AYDOĞAN GÜNGÖR E., Maloy S., Vogel S., Yablinski C., Anderoglu O., Almirall N., Odette R., Shao L., Garner F.  
TMS 2017, 26 - 02 February 2017
- XI. **Post irradiation examination of fast neutron irradiated 14YWT tubes at nuclear science user facilities**  
Saleh T., Krumwiede D., Aydogan E., Quintana M., Romero T., Hosemann P., Maloy S.  
2017 Transactions of the American Nuclear Society, ANS 2017, California, United States Of America, 11 - 15 June 2017, vol.116, pp.394-395
- XII. **High dose self-ion irradiation studies on 14YWT nanostructured ferritic alloys**  
AYDOĞAN GÜNGÖR E., Maloy S., Anderoglu O., Almirall N., Odette R., Shao L., Garner F.  
CAARI 2016, 30 October - 04 November 2016
- XIII. **Microstructure and Mechanical Properties of High Dose Self-ion Irradiated Nanostructured Ferritic Alloys**  
AYDOĞAN GÜNGÖR E., Anderoglu O., Maloy S., gigax j., Price L., Chen D., chen t., Wang X., Garner F., Shao L.  
TMS 2016, 14 - 18 February 2016
- XIV. **Effect of Tube Processing Methods on Microstructure and Mechanical Properties of Nanostructured Ferritic Alloys**  
AYDOĞAN GÜNGÖR E., Anderoglu O., Maloy S.  
TMS 2016, 14 - 18 February 2016
- XV. **Microstructure and Mechanical Property Evolution during Tube Processing of Oxide Dispersion Strengthened (ODS) Ferritic Steels**  
AYDOĞAN GÜNGÖR E., Anderoglu O., Maloy S., Vogel S., chen t., Shao L., Odette R., Hoelzer D., Lewandowski J., Anderson I., et al.  
TMS 2015, 15 - 19 March 2015
- XVI. **Swelling Resistance of Several Variants of Ferritic Alloy EK-181 at High Doses During Self Ion Irradiation**  
AYDOĞAN GÜNGÖR E., chen t., Chen D., gigax j., Wang X., Wei C., Shao L., Dzhumaev P., Emelyanova O., Ganchenkova M., et al.  
TMS 2015, 15 - 19 March 2015
- XVII. **Role of Shock Loading and Annealing on the Microstructural and Mechanical Properties of F/M HT-9 Steels**  
AYDOĞAN GÜNGÖR E., Anderoglu O., Maloy S., Coughlin D.  
MRS Fall 2014, 30 November - 05 December 2014
- XVIII. **Formation Kinetics, Morphology and Magnetic Properties of BaHF Ceramics Synthesized in x wtNaCl-(100-x) wt KCl Molten Salts**  
Kaya S., AYDOĞAN GÜNGÖR E., DERİCİOĞLU A. F.  
Advanced Materials World Congress (AMWC), 16 September - 19 June 2013
- XIX. **Processing Characterization of Textured Barium Ferrite Ceramics**  
Kaya S., AYDOĞAN GÜNGÖR E., DERİCİOĞLU A. F.  
IMMC 2012, 13 - 15 September 2012
- XX. **Developing Pathways for Bioinspired Bulk Nano-Laminar Composites**  
AYDOĞAN GÜNGÖR E., DERİCİOĞLU A. F.  
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## Scientific Refereeing

JOURNAL OF NUCLEAR MATERIALS, SCI Journal, October 2020

JOURNAL OF NUCLEAR MATERIALS, SCI Journal, September 2020

## **Citations**

Total Citations (WOS):485

h-index (WOS):15

## **Scholarships**

Uluslararası Lider Arařtırmacılar Ödülü, TUBİTAK, 2020 - Continues