

## rof. Dr.-Ing. Sümer Şahin



### CURRICULUM VITAE (1 June 2023) PERSONAL DATA

Name: Sümer Şahin

Present Position: Professor of Mechanical and Nuclear Engineering

Nationality: Turkish

Town of origin: Erdemli, Mersin, TÜRKİYE

Birth date and place: 9 June 1942, Kadirli, Osmaniye, TÜRKİYE

Marital Status: Married, 2 children

Nationality: Turkish

Religion: İslam

#### Residence:

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<https://nisantasi.academia.edu/SumerSahin>

<https://nisantasi.academia.edu/SumerSahin/CurriculumVitae>

<http://akademik.bahcesehir.edu.tr/web/sumersahin/en/index.html>

<https://akademik.bahcesehir.edu.tr/web/sumersahin/en/cveng1.pdf>

<https://neu.edu.tr/wp-content/uploads/2018/01/25/sumer-sahin-eng-cv-24.01.2018.pdf>

<https://scholar.google.com.tr/citations?user=7YKnrQkAAAAJ&hl=en&authuser=1>

<http://w3.gazi.edu.tr/~sumer/index2.htm>

### FOREIGN LANGUAGES

- English(fluent)
- French (fluent)
- German (fluent)

## ACADEMIC DEGREES

- 1981: Promotion to a **Full Professor in Nuclear Engineering**, University of Ege, İzmir, Türkiye
- 1973: **Habilitation (Doçent-Dozent) in Physics**, University of Ankara, Ankara, Türkiye
- 1970: **Doktor-Ingenieur (PhD) in Mechanical Engineering**, University of Stuttgart, Stuttgart, Germany
- 1967: **Diplom-Ingenieur (MS) in Mechanical Engineering**, University of Stuttgart, Stuttgart, Germany

## ACADEMIC POSITIONS

- June 2020-presently: **Professor**, Nişantaşı University, Faculty of Engineering, Maslak, İstanbul, TÜRKİYE
- February 2018-presently: **Adjoint Professor**, Bahçeşehir University, Faculty of Engineering, Beşiktaş, İstanbul, TÜRKİYE
- August 2016 –February 2018: **Professor and Dean**, Faculty of Engineering, Near East University, Turkish Republic of Northern Cyprus
- December 2009 – July 2016: **Professor**, Department of Mechanical Engineering, Faculty of Engineering, ATILIM University, Ankara, Türkiye.
- March 1988 – June 2009: **Professor**, Faculty of Technology, Gazi University, Ankara, Türkiye
- June 1984 - March 1988: **Professor**, Department of Mechanical Engineering, Faculty of Engineering, Erciyes University, Kayseri, Türkiye
- 1983 - 1986: **Professor**, Department of Electrical Engineering, College of Engineering, King Saud University, Riyadh, Saudi Arabia
- 1978 - 1983: **Advanced Research Scientist**, Institut de Génie Atomique, Department of Physics, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland
- 1974 - 1980: **Associate Professor**, Faculty of Engineering Sciences, University of Ege, İzmir, Türkiye.
- 1970 - 1974: **Assistant Professor and after 1973 Associate Professor**, Faculty of Mechanical and Electrical Engineering, Karadeniz Technical University, Trabzon, Türkiye

## FOREIGN EXPERIENCES

- 1960 – 1961: Iserlohn, Germany (Goethe Institute + industrial practice)
- 1961 – 1970: University of Stuttgart, Stuttgart, Germany (BS, MS, PhD in mechanical engineering)
- 1972 – 1973: Radiation Shielding Information Center, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA (Post doctoral NATO fellow)
- 1978 - 1983: Institut de Génie Atomique, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland (Faculty)
- 1983 - 1986: College of Engineering, King Saud University, Riyadh, Saudi Arabia (Professor)
- Summer 1984 and Summer 1985: National Tsing-Hua University, Hsinchu, Republic of China (Visiting Professor)
- Summer 1993: Space Exploration Associates, Cedarville, Ohio 45314, USA (Visiting scientist)
- February 1997: Universität Innsbruck, Institut für theoretische Physik, Austria (Guest professor)
- Summer 2003: CERN, European Nuclear Research Center, Geneva, Switzerland (Visiting scientist)
- Summer 2004: Radiation Shielding Information Center, Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA (Visiting scientist)
- Summer 2006: General Atomics, San Diego, CA, USA (Visiting scientist)

## PRINCIPAL COURSES TAUGHT

Nuclear Engineering,	Reactor Physics,	Modern Physics,
Heat Transfer,	Thermodynamics,	Radiation Safety,
Physical Aspects of the Energy Production,		Nuclear Reactor Design,
Fusion Technology,	Heat Pipes	

- Advising ~ 20 Master Thesis and ~ 20 Doctoral Dissertations

These courses were taught in the following Universities:

- ATILIM University, Ankara, Türkiye
- Gazi University, Ankara, Türkiye
- Erciyes University, Kayseri, Türkiye
- King Saud University, Riyadh, Saudi Arabia
- Ecole Polytechnique Fédérale de Lausanne, Switzerland
- Faculty of Engineering, University of Ege, İzmir, Türkiye
- Karadeniz Technical University, Trabzon, Türkiye

### **PRINCIPAL AREAS OF EXPERTISE**

- Neutron Transport Theory
- Nuclear Radiation Shielding
- Thermionic Space Craft Reactors
- Space Craft Nuclear Propulsion
- Fusion Technology
- Fusion Fission (Hybrid) Reactors
- Small Modular Reactors
- Molten Salt Reactors
- Nuclear Waste Transmutation
- CANDU Reactors
- Accelerator Driven Systems
- Concentrated Solar Power

### **LEADING RESPONSIBILITIES**

- HONORARY CHAIRMAN, NURER2020, The 7<sup>th</sup> International Conference on Nuclear and Renewable Energy Resources, Ankara, Türkiye (May 26-29, 2024) <http://www.nurer2020.org/>
- HONORARY CHAIRMAN, NURER2018, The 6<sup>th</sup> International Conference on Nuclear and Renewable Energy Resources, Jeju, Korea (30 September – 03 October 2018) <http://nurer2018.org/>
- August 2016-January 2018: **DEAN**, Faculty of Engineering, Near East University, Turkish Republic of Northern Cyprus
- 2016-presently: **ACADEMIC MEMBER**, ATINER, Athens Institute for Education and Research
- HONORARY CHAIRMAN, **ICENES 2017**, 18<sup>th</sup> International Conference on Emerging Nuclear Energy Systems, Hefei, Anhui, China (24-27 April 2017) <http://icenes2017.org/dct/page/1>
- HONORARY CHAIRMAN, NURER2016, The 5<sup>th</sup> International Conference on Nuclear and Renewable Energy Resources, Hefei, Anhui, China (18-21 September 2016) <http://nurer2016.org.cn/>
- 2015-presently: **PRESIDENT** of ICENES, International Conference on Emerging Nuclear Energy Systems series
- Dec. 2009 – Oct. 2015: **CHAIRMAN**, Department of Mechanical Engineering, ATILIM University, Faculty of Engineering
- HONORARY CHAIRMAN, **ICENES 2015**, 17<sup>th</sup> International Conference on Emerging Nuclear Energy Systems, İstanbul, Türkiye (4-8 October 2015) <http://www.icenes2015.org/index.php>
- HONORARY CHAIRMAN, NURER2014, The 4<sup>th</sup> International Conference on Nuclear and Renewable Energy Resources, Antalya, Türkiye (18-23 October 2014) <http://nurer2014.org/>

- 2013-presently: HONORARY EDITORIAL BOARD, International Journal of Hydrogen Energy <http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/editorial-board/>
- HONORARY CHAIRMAN, NURER2012, The III. International Conference on Nuclear and Renewable Energy Resources, İstanbul, Türkiye (20-23<sup>rd</sup> May 2012) <http://www.nurer.org/>
- 2011: GENERAL CHAIRMAN, SET2011, 10<sup>th</sup> International Conference on Sustainable Energy Technologies, İstanbul, Türkiye (4-7<sup>th</sup> September 2011)
- 2007: CHAIRMAN, ICENES 2007, 13<sup>th</sup> International Conference on Emerging Nuclear Energy Systems, İstanbul – Türkiye (3 – 8 June 2007) <http://www.icenes2007.org/>
- 2004–Presently: EDITORIAL BOARD, Journal “Energy Conversion&Management”, <http://www.sciencedirect.com/science/journal/01968904/110>; [http://ac.els-cdn.com/S0196890416000078/1-s2.0-S0196890416000078-main.pdf?\\_tid=22ef3076-c4fa-11e5-bbe7-00000aacb361&acdnat=1453901611\\_0a351ed203cf31db9caf28c365699076](http://ac.els-cdn.com/S0196890416000078/1-s2.0-S0196890416000078-main.pdf?_tid=22ef3076-c4fa-11e5-bbe7-00000aacb361&acdnat=1453901611_0a351ed203cf31db9caf28c365699076)
- 1997: GUEST PROFESSOR, Universität Innsbruck, Institut für theoretische Physik, Innsbruck, Austria
- 1989-1990: GRADUATE DEAN, Institute of Science and Technology, Gazi University, Ankara, Türkiye
- Febr. 1987- Jan. 1988: PRESIDENT, Turkish Scientific and Technical Research Council of (TÜBİTAK) ANKARA, Türkiye [http://www.tubitak.gov.tr/tubitak\\_content\\_files//ozgecmis/SumerSahin.pdf](http://www.tubitak.gov.tr/tubitak_content_files//ozgecmis/SumerSahin.pdf)
- 1987-1989: VICE-CHAIRMAN, Intergovernmental Committee on Science and Technology for Development, United Nations, New York, USA
- 1985-1987: DEAN, Faculty of Engineering, Erciyes University, Kayseri, Türkiye
- 1972-1974: CHAIRMAN, Department of Mechanical Engineering, Karadeniz Technical University, Trabzon, Türkiye

### OTHER RESPONSIBILITIES & COMMUNITY SERVICES

1987 - 1988: Chairman, Special Commission for the Mainframe Planning of Scientific Research and Technology of Türkiye State Planning Organization, Ankara, Türkiye

1980: Scientific Secretary of the Second International Conference on Emerging Nuclear Energy Systems, Lausanne, Switzerland, ICENES1980 (April, 8-11, 1980)

### PROJECTS

2022-2023: Leader of the project “design of a 30 MW<sub>th</sub> Thorium Molten Salt Reactor”, Turkish Scientific and Technical Research Council, The Turkish Atomic Energy Authority, Ankara, Türkiye

2006–2007: Leader of the project “Utilization of Thorium and Nuclear Waste Actinides as Nuclear Fuel in Advanced Nuclear Reactors”, supported by The Turkish Atomic Energy Authority, Ankara, Türkiye

2003–2004: Leader of the project “Nuclear Fuel Production in Emerging Nuclear Energy Systems”, supported by the research Fund of Gazi University, Ankara, Türkiye

2003–2004: Leader of the project “Utilization of Thorium Using Advanced Nuclear Technologies”, supported by the State Planning Organization of Türkiye, Gazi University, Ankara, Türkiye

2001–2003: Leader of the project “Assessment of Thorium Fuel in Fission Reactors”, supported by the research Fund of Gazi University, Ankara, Türkiye

1995-1999: Leader of the project “Nuclear and Fossil Energy Systems for Space Crafts”, supported by the State Planning Organization of Türkiye, Gazi University, Ankara, Türkiye

1990-1994: Leader of the project “Fusion Technology”, supported by the State Planning Organization of Türkiye, Gazi University, Ankara, Türkiye

1979-1983: Chief of the Experimental Project “Fusion - Fission (Hybrid) Reactor (LOTUS)”, Institut de Génie Atomique, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

## **RESEARCH EXPERIENCE**

2020- Presently: On Molten Salt Reactors, Fusion Technology, Fusion Fission (Hybrid) Reactors, Actinide Burning, Generation-IV Reactors, ADS, Nişantaşı University, İstanbul, TÜRKİYE

2018- Presently: On Fusion Technology, Fusion Fission (Hybrid) Reactors, Actinide Burning, Generation-IV Reactors, ADS, Bahçeşehir University, İstanbul, TÜRKİYE

2009-2016: On Fusion Technology, Fusion Fission (Hybrid) Reactors, Actinide Burning, Fusion Propulsion and Generation-IV Reactors, ADS, ATILIM University, Ankara, Türkiye

1988-2009: On Fusion Technology, Fusion Fission (Hybrid) Reactors, Actinide Burning, Fusion Propulsion and Space Thermionic Reactors by setting up an effective multigroup neutron physics analysis system, Gazi University, Ankara, Türkiye.

1984-1988: On Fusion - Fission (Hybrid) Reactors by setting up an effective multigroup neutron physics analysis system, Erciyes University, Kayseri, Türkiye.

1983-1986: In the area of Fusion - Fission (Hybrid) Reactors and Radiation Shielding by setting up an effective multigroup neutron physics analysis system, King Saud University, Riyadh, Saudi Arabia

1978-1983: In the area of Fusion - Fission (Hybrid) Reactors and Radiation Shielding by setting up an effective multigroup neutron physics analysis system, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland

1974-1980: In the area of Radiation Shielding and Space Craft Thermionic Reactors by setting up an effective multigroup neutron physics analysis system, University of Ege, İzmir, Türkiye

1972-1973: On Multigroup Analysis of Radiation Shielding Problems of Fast Reactors Radiation Shielding Information Center, Oak Ridge National Laboratory, Oak Ridge, USA

1966-1970: On Multigroup Neutronic Analysis of Thermionic Reactors for Spacecraft Applications, Institute of Nuclear Energy, University of Stuttgart, Stuttgart, Germany

## INVITED TALKS & SEMINARS (FOREIGN)

- 2015: Institute of Technology Bandung, Bandung, Indonesia
- 2015: Pakistan Institute for Engineering and Applied Sciences, Nihore, Pakistan
- 2015: DIRECTORATE OF NUCLEAR POWER ENGINEERING REACTOR, Islamabad, Pakistan
- 2014: The FEDERAL UNIVERSITY OF RIO DE JANEIRO, Brazil
- 2014: Universidade do Minho, Guimarães, Portugal
- 2013: [Universidad Politécnica de Madrid \(UPM\)](#), Madrid, Spain
- 2010: Shanghai Nuclear Engineering Research & Design Company, Shanghai, China
- 2007: Atominstitut der Österreichischen Universitäten, Technische Universität Wien, Vienna, Austria
- 2006: Lawrence Livermore National Laboratory, University of California, Livermore, USA
- 2003: Lawrence Livermore National Laboratory, University of California, Livermore, USA  
University of California, Department of Nuclear Engineering, Berkeley, CA, USA
- 1995: Lawrence Livermore National Laboratory, University of California, Livermore, USA  
University of California, Department of Nuclear Engineering, Berkeley, CA, USA  
Space Power Incorporation, San Jose, CA, USA
- 1993: University of Tehran, Department of Physics, Tehran, Iran
- 1991: University of Wales, College of Cardiff, Cardiff, UK
- 1989: United Horizons Office, Riyadh, Saudi Arabia
- 1985: DENIM, Universidad Politécnica de Madrid, Spain  
McMaster University, Hamilton, Canada  
National Tsing - Hua University, Hsinchu, Republic of China  
Institute of Nuclear Energy Research, Lung - Tan, Republic of China  
Eidgenössisches Institut für Reaktorforschung, Würenlingen, Switzerland
- 1984: University of Petroleum and Minerals, Dhahran, Saudi Arabia  
National Tsing - Hua University, Hsinchu, Republic of China
- 1983: Eidgenössische Technische Hochschule, Zürich, Switzerland  
King Abdul Aziz University, Jeddah, Saudi Arabia
- 1982: Bhabha Atomic Research Centre, Bombay, India  
Reactor Research Centre, Kalpakkam, India  
Vikram Sarabhai Space Centre, Trivandrum, India  
King Abdul Aziz University, Jeddah, Saudi Arabia
- 1981: Department of Mechanical Engineering, Ohio State University, Columbus, OH, USA  
King Abdul Aziz University, Jeddah, Saudi Arabia  
Plasma Physics Laboratory, Princeton University, Princeton, New Jersey, USA
- 1980: Fusion Power Systems Department, Westinghouse Electric Corporation, Pittsburgh, Pennsylvania, U. S. A.
- 1979: Department of Energy, Washington, DC, USA

## THESES

- a) "Berechnung eines thermischen thermionischen Kernreaktors mit abgeflachter Leistungsdichteverteilung", IKE-Bericht, Nr. 6-36d, *MS Thesis*, University of Stuttgart, Germany (1967)
- b) "Zweckmäßige Auslegung von thermischen Vollthermionikreaktoren mit konstanter Emittieraufheizung zur Anwendung in der Raumfahrt", IKE-Bericht, Nr. 6-45, *PhD Thesis*, University of Stuttgart, Germany (1970)
- c) "Comparison of Diffusion and Transport Theory for Fast Reactor Shielding Calculations", Presented to the Faculty of Science, Ankara University, Türkiye, *Habilitation thesis in Turkish* (1973)
- d) "An Attempt to Unveil the Basic Structure of the Neutron Bomb and Evaluate a Protection Against it", University of Ege, Izmir, Türkiye (1981) (*Thesis submitted for being promoted to the full professorship position, in Turkish*)

## PUBLICATIONS IN FOREIGN LANGUAGES

[\*] Registered in Science Citation Index

**Total # of citations in SCI= 3557**

**H-Index = 34**

**i10-Index = 82**

## REFEREED JOURNAL ARTICLES

1. Abstract of the Ph.D. Thesis, *VDI-Zeitschrift*, Vol. 113, p. 191 (1971) (S. Şahin)
2. "Thermische Vollthermionikreaktoren mit konstanter Emittieraufheizung zur Anwendung in der Raumfahrt", *Atomkernenergie*, Vol. 18, pp. 177-188 (1971) (S. Şahin) [\*]
3. "Analytische Behandlung des konstanten thermischen Flussverlaufs für ebene Geometrie", *Atomkernenergie*, Vol. 20, pp. 117-121 (1972) (S. Şahin) [\*]
4. "Comparison of Diffusion and Transport Theory for Fast Reactor Shielding Calculations", *Atomkernenergie*, Vol. 22, pp. 24-35 (1973) (S. Şahin) [\*]
5. "A Comparison of Data Libraries for Thermal Fuel Cell Calculations", *Atomkernenergie*, Vol. 23, pp. 151-152 (1974) (S. Şahin) [\*]
6. "An Investigation of Fuel-Moderator Combinations for Thermal Thermionic Reactors in Space Crafts", *Atomkernenergie*, Vol. 24, pp. 89-94 (1974) (S. Şahin) [\*]
7. "The  $^{240}\text{Pu}$  Content of Commercial Produced Plutonium and the Criticality of Fast Assemblies", *Atomkernenergie*, Vol. 27, pp. 23-26 (1976) (S. Şahin) [\*]
8. Answer to Fleck's Remarks to Şahin's Paper "The  $^{240}\text{Pu}$  Content of Commercial Produced Plutonium and the Criticality of Fast Assemblies", *Atomkernenergie*, Vol. 28, pp. 297-298 (1976) (S. Şahin) [\*]
9. "Neutron Physics Analysis of Thermionic Reactors for Space Crafts with  $^{233}\text{U}$  as fuel and  $\text{ZrH}_{1.7}$  as Moderator", *Atomkernenergie*, Vol. 28, pp. 256-258 (1976) (S. Şahin) [\*]
10. "Neutron Physics Analysis of Thermionic Reactors for Space Crafts with  $^{233}\text{U}$  as Fuel and Beryllium as Moderator", *Annals of Nuclear Energy*, Vol. 3, nos. 9-10, pp. 447-450 (1976) (S. Şahin) [\*]  
<http://www.sciencedirect.com/science/article/pii/0306454976900293>  
[https://doi.org/10.1016/0306-4549\(76\)90029-3](https://doi.org/10.1016/0306-4549(76)90029-3)
11. "Solar Energy Thermionic Power Plants for Space Crafts", *Kerntechnik*, Vol. 19, pp. 233-236 (1977) (S. Şahin) [\*]
12. "A 50 kW(el) Solar Energy Thermionic Generator for Space Craft", *Atomkernenergie*, Vol. 31, pp. 203-205 (1978) (S. Şahin) [\*]

13. "The Effects of  $^{240}\text{Pu}$  on Neutron Lifetime in Nuclear Explosives", *Annals of Nuclear Energy*, Vol. 5, no. 2, pp. 55-58 (1978) (S. Şahin) [\*] <http://www.sciencedirect.com/science/article/pii/0306454978901044>  
[https://doi.org/10.1016/0306-4549\(78\)90104-4](https://doi.org/10.1016/0306-4549(78)90104-4)
14. "Investigation of the Suitability of the Reflector Drums as Control Mechanism for Thermionic Reactors in Space Crafts with  $^{233}\text{U}$  as Fuel and  $\text{ZrH}_{1.7}$  as Moderator", *Annals of Nuclear Energy*, Vol. 5, nos. 3-4, pp. 107-116 (1978) (S. Şahin, A. Erişen) [\*] <http://www.sciencedirect.com/science/article/pii/0306454978900634>  
DOI: 10.1016/0306-4549(78)90063-4
15. "Investigation of the Suitability of the Diffusion Theory for Simple Shielding Calculations of Fast reactors", *Journal of the Faculty of Engineering*, University of EGE, Vol. 5, pp. 1-29 (1979) (S. Şahin)
16. Addendum to "Answer to Fleck's Remarks to Şahin's Paper", *Atomkernenergie/ Kerntechnik*, Vol. 33, p. 223 (1979) (S. Şahin) [\*]
17. "Solar Energy Power Generators with Hybrid Thermionic Converters", *Atomkernenergie/ Kerntechnik*, Vol. 33, pp. 303-304 (1979) (S. Şahin) [\*]
18. "Reflector Drums as Control Mechanism for Compact Thermionic Space Craft Reactors with  $^{233}\text{U}$  as Fuel", *Nuclear Energy, Journal of the British Nuclear Energy Society*, Vol. 18, pp. 401-408 (1979) (S. Şahin, A. Erişen, S. Selvi, S. Yalçın) [\*]
19. "Advanced Thermionic Generators with Solar Energy for Spatial Applications", *Transactions of the American Nuclear Society Winter Meeting*, Vol. 33, pp. 7-9, San Francisco, California (Nov. 11-16, 1979) (S. Şahin) [\*]
20. "Control Mechanism for Space Craft Thermionic Reactors Leading to Lower Radiation Shielding Mass", *Transactions of the American Nuclear Society Winter Meeting*, Vol. 33, pp. 652-654, San Francisco, California (Nov. 11-16, 1979) (S. Şahin) [\*]
21. "Protection Against Neutron Bomb Radiation", *Transactions of the American Nuclear Society Winter Meeting*, Vol. 33, pp. 677-678, San Francisco, California (Nov. 11-16, 1979) (S. Şahin) [\*]
22. "Limited Protection Against Enhanced Radiation Warhead", *Réunion de Printemps de la Société Suisse de Physique*, Basel (5-6 April 1979) Abstract in *Helvetica PhysicaActa*, Vol. 52, p. 394 (1980) (S. Şahin, A. Erişen, S. Yalçın and S. Selvi) [\*]
23. "Reflector Drums as Control Mechanism for Compact Thermionic Space Craft Reactors with  $^{233}\text{U}$  as Fuel", *Réunion de Printemps de la Société Suisse de Physique*, Basel (5-6 April 1979) Abstract in *Helvetica PhysicaActa*, Vol. 52, p. 394 (1980) (S. Şahin, A. Erişen, S. Selvi and S. Yalçın) [\*]
24. "Reflector Drums as Control Mechanism for Space Craft Thermionic Reactors with Constant Emitter Heating Containing  $^{233}\text{U}$  as Fuel and Beryllium as Moderator", *Atomkernenergie/Kerntechnik*, Vol. 35, pp. 12-14 (1980) (S. Şahin, S. Selvi) [\*]
25. "Investigation of the Protection Possibilities against Enhanced Radiation Warhead", *Atomkernenergie/Kerntechnik*, Vol. 35, pp. 175-178 (1980) (S. Şahin, A. Erişen, S. Yalçın, S. Selvi) [\*]
26. "Basic Structure of the Fusion-Fission (Hybrid) Reactor Experimental Research Project at Laboratoire de Genie Atomique de l'EPFL", *Atomkernenergie/Kerntechnik*, Vol. 36, pp. 33-35 (1980) (S. Şahin, 5 co-authors) [\*]
27. "Adjoint Weighted Neutron Lifetime in Nuclear Explosives", *Atomkernenergie/ Kerntechnik*, Vol. 36, pp. 141-142 (1980) (S. Şahin, S. Yalçın) [\*]
28. "The Effect of the Spontaneous Fission of  $^{240}\text{Pu}$  on the Energy Release in a Nuclear Explosive", *Nuclear Technology*, Vol. 50, pp. 88-94 (1980) (S. Şahin, J. Ligou) [\*] [http://www.ans.org/pubs/journals/nt/a\\_17072](http://www.ans.org/pubs/journals/nt/a_17072)  
[dx.doi.org/10.13182/NT80-A17072](https://doi.org/10.13182/NT80-A17072)
29. Reply to the Comments and Supplement to "Protection Possibilities Against Enhanced Radiation Warheads", *Atomkernenergie/Kerntechnik*, Vol. 36, pp. 303-304 (1980) (S. Şahin) [\*]
30. "Non-proliferation", *Nature*, Vol. 287, p. 578 (16 October 1980) (S. Şahin) [\*] DOI:10.1038/287578a0  
<http://www.nature.com/nature/journal/v287/n5783/abs/287578a0.html>
31. Reply to the Remarks on the " $^{240}\text{Pu}$  Induced Preignition Problem in a Nuclear Device", *Nuclear Technology*, Vol. 54, pp. 431-432 (1980) (S. Şahin) [\*]



32. "Constant Emitter Heating on Compact Spacecraft Thermionic Reactors with  $^{233}\text{U}$  as Fuel and Beryllium as Moderator", *Atomkernenergie/Kerntechnik*, Vol. 37, pp. 16-19 (1981) (S. Şahin, E. Ertaş)[\*]
33. "Biological Radiation Shielding for a Fast Undercritical Hybrid Assembly", *Atomkernenergie/Kerntechnik*, Vol. 37, pp. 118-122 (1981) (S. Şahin, J. Ligou, M. Caro) [\*]
34. "Neutronic Analysis of Fast Hybrid Thermionic Reactors", *Atomkernenergie/ Kerntechnik*, Vol. 39, no. 1, pp. 41-44 (1981) (S. Şahin) [\*]
35. Book Review - "Status and Prospects of Thermal Breeders and their Effects of Fuel Utilization, IAEA-Vienna (1979)", *Atomkernenergie/Kerntechnik*, Vol. 39, pp. 60 (S. Şahin) (1981)
36. "Flight Performance of a Mars-Earth-Venus Shuttle with Energy Supply from a Solar Energy Advanced Thermionic Generator", *Atomkernenergie/Kerntechnik*, Vol. 39, pp. 177-180 (1981) (S. Şahin) [\*]
37. "Investigation of Lanthanide's as Neutron Multipliers for Hybrid and Fusion Reactor Blankets", *Nuclear Technology/Fusion*, Vol. 2, pp. 224-232 (1982) (S. Şahin) [\*][http://www.ans.org/pubs/journals/fst/a\\_20752](http://www.ans.org/pubs/journals/fst/a_20752) [dx.doi.org/10.13182/FST82-A20752](https://doi.org/10.13182/FST82-A20752)
38. "A Solar-Thermionic Generator for Space Disposal of Nuclear Wastes", *Atomkernenergie/Kerntechnik*, Vol. 40, no. 3, pp. 155-156 (1982) (S. Şahin) [\*]
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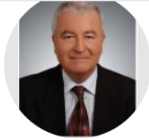
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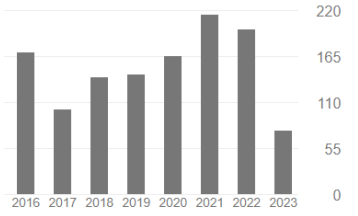
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