

curriculum vitae
Nasser S. Alzayed (Ph.D.)

Personal Data:

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Education:

Ph.D. Solid State Physics (Superconductivity)	University of Kansas, USA	1994
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B.Sc. Physics	King Saud University	1984

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Employment:

Demonstrator	King Saud University	1985-1988
Lecturer	King Saud University	1988-1994
Assistant prof.	King Saud University	1995-2010
Associate prof.	King Saud University	2010-Oct. 2015
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- Chairman of Physics & Astronomy Dept., King Saud University, Aug. 2009-Aug. 2011
- Chairman of the e-Learning Unit of the College of Science, King Saud University. May 2012 – May 2014.

Committees:

1. Head of the College website committee and supervisor of the College of Science computer labs (2000 to 2008)
2. Head of the Scientific Committee of the university website (2009-2011)
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4. Member of the Demonstrators Committee (Phys. Dept.), 1997/01/01 2006/06/01
5. Head of the Committee for twining with private sector (Phys. Dept.), 1997/01/01 2001/08/01
6. Member of the Curriculum Committee (Phys. Dept.), 1999/08/01 2005/08/06
7. Head of the committee to revise the Course 206 CSC (Basic Programming) (College of Science), 2000/06/01 2000/06/30

8. Member of the Physics Department Alumni committee (Phys. Dept.),2009/08/15
2011/05/10
9. Head of the Computers & Computer Labs of the College of Science 2000/05/01
2007/09/30
10. Administrator of the College website Committee 2007/06/01 2011/08/10
11. Chairman of the E-Learning & Online Courses Unit in the College of Science
2012/07/01 2014/10/30
12. Member of the Internet Committee at King Saud University 2005/07/01 2007/07/01
13. Member of the Top Supervising Committee of the e-Gate of King Saud University
2008/03/01 2011/03/01
14. Head of the Science Colleges branch committee of the e-Gate of King Saud
University 2008/03/01 2011/03/01
15. Head of the Ph.D. Program Committee (Phys. Dept.),2009/08/01 2013/08/01
16. Head of the Recruitment Committee (Saudis) (Phys. Dept.),2012/08/10 2014/12/06
17. Administrator of the Accreditation Committee (Phys. Dept.), 2009/07/15
2011/07/15
18. Head of the Solid State Research Group (Phys. Dept.),2001/06/01 2009/08/01
19. Head of the Recruitment, TA and Lecturer Committee (Phys. Dept.), Aug. 2014 -
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Ph.D. Theses:

Magnetic Properties of $Tl_2Ba_2Ca_2Cu_3O_{10-D}$ Cylindrical Shields and the effect of thermal cycling and silver addition on their quality. 1994

Publications (partial list):

1. *Thermal cycling effect on thallium 2223 high- T_c superconducting cylindrical shield*, Naser S. Alzayed, Y. Xin, W. S. He, C. X. Fan, K. W. Wong, Physica C 235-240 (1994). p 3463-3464
2. *Magnetic shields made of high T_c superconducting ceramic $Tl_2Ba_2Ca_2Cu_3O_{10}$* , S. He, Y. Xin, Naser S. Alzayed, B. R. Xu, C. X. Fan, K. W. Wong, Physica C 235-240 (1994). p 3459-3460
3. *Nondestructive testing of cracks in solid aluminum with a high temperature rf-SQUID*, D. F. Lu, Chang-xin Fan, Naser S. Alzayed, K. W. Wong, S. G. Han, J. Z. Ruan, Y. Xin, Bingruo Xu, Marvin Chester, David E. Knapp, Physica C 235-240 (1994). p 3361-3362 .
4. *High temperature RF SQUID gradiometer applied to non-destructive testing*, X. Fan, D. F. Lu, K. W. Wong, Y. Xin, B. Xu, N. S. Alzayed, M. Chester, D. E. Knapp, Cryogenics 34 N 8 (1994). p 667-670.
5. *Deep nondestructive testing using a bulk high T_c rf-SQUID*, Naser S. Alzayed, Chang-xin Fan, D. F. Lu, K. W. Wong, Marvin Chester, David E. Knapp, IEEE Transactions on Applied Superconductivity V 4 N 2 (1994). p 81-86.
6. *Thallium 2223 high T_c superconductor in a silver matrix and its magnetic shielding, thermal cycle and time aging properties*, Fei, X.; He, W.S.; Havenhill, A.; Ying, Z.Q.; Xin, Y.; Alzayed, N.; Wong, K.K.; Guo, Y.; Reichle, D.; Lucas, M.S.P. Proceedings of the Fourth International

- Conference and Exhibition: World Congress on Superconductivity (NASA Conf. Publ. 3290) 52-743 Vol 2 , World Congress on Superconductivity Houston, TX, USA , 778 (1995).
7. *Tl₂Ba₂Ca₂Cu₃O₁₀ and Au-Added Tl₂Ba₂Ca₂Cu₃O₁₀ Thin Films*, K. W. Wong, Y. Xin, B. R. Xu, D. F. Lu, X. Fei, W. S. He, G. F. Sun, N. Alzayed, C. X. Fan, I. N. Chan, K. Y. Chen, G. J. Salamo, Y. J. Shi, F. T. Chan, W. Y. Ching, *Lasers in Eng.* V 2 (1994). P 319-324.
 8. *Magnetic Attenuation by HTC Superconducting Cylinders*, Naser S. Alzayed, K. W. Wong, C. X. Fan, Y. Xin, D. F. Lu, D. E. Knapp, *Chinese Journal of Physics*, 34 Iss: 2, pt.2 p. 698-701 (1996).
 9. *Investigation of the Evolutional Processes of HTCS RF-SQUID Made from Tl2223 and Operated at 77 K*, N. S. Alzayed, J. King Saud University, Vol. 17, Science (1), pp 17-30 (2004).
 10. *Design of ac susceptometer using closed cycle helium cryostat*, Mohammed. Shahabuddin and Nasser Saleh Alzayed , , *Phys. Stat. Sol., C* 3, 3002 (2006) p. 3002-3006 .
 11. *Low cost ac susceptometer using closed cycle helium cryostat* , Ismail A. Alfaleh, Mohammed. Shahabuddin and Nasser S. Alzayed, *submitted*.
 12. *Effect of Nano-NiO Doping on the Magnetic Susceptibility and Flux Pinning in MgB₂ Superconductor*, Nasser S. Alzayed, *Int. J. Nanoparticles*, Vol. 2, Nos. 1/2/3/4/5/6, 2009, pp 372-378.
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 14. M. Ben Karoui, R. Gharbi, N. Alzaied, M. Fathallah, E. Tresso, L. Scaltiro, S. Ferrero, *Effects of defects on electrical properties of 4H-SiC Schottky Diodes*, *Materials Science and Engineering*, The Netherlands, Vol. C 28, 2008, pp 799-804.
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 16. M. Ben Karoui, R. Gharbi, N. Alzaied, M. Fathallah, E. Tresso, L. Scaltrito, S. Ferrero, *Influence of inhomogeneous contact in electrical properties of 4H-SiC based Schottky diode* , *Solid-State Electronics*, The Netherlands, Vol. 52, 2008, pp 1232-1236.
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Research Projects:

1. *Gamma Radiation Effect on Physical and mechanical properties of Polyethylene PE made by SABIC, **Nasser S. Alzayed***, Mohammed Shahabuddin, A.A. Moazzen, 1998, Closed. (50,000 SR).
2. *Mechanical and Thermal properties of YBCO superconductors, (1420H), (By KACST), **Nasser S. Alzayed***, Closed (100,000 SR)
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5. *Magnetic Attenuation of tubes made from Bi₂Sr₂Ca₂Cu₃O_{8+d} superconductors, **Nasser S. Alzayed***, by Research Center, 1420 H (30,000 SR) Closed
6. *Design and fabrication of micro-Hall probe magnetometer for the measurement of magnetization and ac susceptibility of High T_c Superconductors, **Nasser S. Alzayed***, M. Shahabuddin, by Research Center, 2004 (45,000 SR) Closed
7. *Design and Fabrication of High sensitive AC Susceptometer, **Nasser S. Alzayed***, M. Shahabuddin, by Research Center, 2004 (45,000 SR) Closed
8. *Influence of Carbon Doping on the Magnetic Properties of MgB₂ Superconductors, M. Shahabuddin, **Nasser S. Alzayed***, by Research Center 2005 (45,000 SR) closed
9. *Nano-carbon substitution effect on electrical and magnetic properties of Magnesium Diboride superconductors, M. Shahabuddin, **Nasser S. Alzayed***, by Research Center, 2006 (50,000 SR) Closed
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11. *Enhancement of Critical current density and Mechanical strength of MgB₂ Superconductors by doping hydrocarbon /carbohydrate. Current, M.*

- Shahabuddin, **Nasser S. Alzayed**, by Center of Excellence for Research in Engineering Materials, (650,000 SR). Closed
12. *Synthesis and magnetic and electrical properties measurement of CNT- MgB₂ nano composites*, **Nasser S. Alzayed**, M. Shahabuddin, King Abdullan Institute for Nanotechnology, (850,000) Closed
 13. *Photoinduced absorption of the new chalcogenide crystals*, **Nasser S. Alzayed**, I.V. Kityk, A. M. El-Naggar, supported by the Deanship of Scientific Research, KSU. (2010) Current
 14. *Modification and Electromagnetic Properties of MgB₂ Superconductors by NanoMaterials Doping for High Magnetic Field Application*, National Plan for Science & Technology, **Nasser S. Alzayed**, M. Shahabuddin, M. Asif, NPST (1, 920,000 SR) Now Closing
 15. *Development of superconducting wires for high current carrying application using MgB₂*, M. Shahabuddin, **Nasser S. Alzayed**, M. Asif, NPST (1,650,000 SR). Now Closing
 16. *Synthesis of new class of Iron-based rare earth Oxyarsenide SmFeAsOF Superconductor*, College of Science Research Center, **Nasser S. Alzayed**, M. Shahabuddin. Intekhab Ansari. Rejected
 17. *Synthesis of MgB₂ Thin film Using Pulsed Laser Deposition System for Device Application*, **Nasser S. Alzayed**, M. Shahabuddin, I. V. kityk, A. M. El-naggar, NPST (1,950,00 SR) . Current.
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Collaboration with Distinguished International Research Groups:

With my research group, we have 3 active International Collaborations:

- 1- Institute for Superconducting & Electronic Materials (ISEM), Australian Institute of Innovative Materials, University of Wollongong, Innovation Campus, Squires Way, North Wollongong, NSW 2500, Australia. through Prof. Jung Ho Kim and Dr. Md. Shahriar Al Hossain
- 2- TECHNICAL UNIVERSITY OF CZĘSTOCHOWA FACULTY OF ELECTRICAL ENGINEERING, AL. ARMII KRAJOWEJ 17 42-200 CZĘSTOCHOWA through Prof. Iwan V. Kityk

3- Max-Planck-Institute für Festkörperforschung, Heisenbergstr. 1, D-70569
Stuttgart, Germany, through Prof. S. Soltan