Name: Alla Zak, Ph.D.

HIT – Holon Institute of Technology
Date: 1st September 2026

CURRICULUM VITAE

1. Personal Details

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2. Higher Education

Undergraduate and Graduate Studies

Period of Study	Name of Institution and Department	Degree	Year of Approval of Degree
1996-2002	Weizmann Institute of Science, Faculty of Chemistry, Department of Materials and Interfaces	Ph.D. in Materials Science	5/12/2002
1978-1985	University of Kishinev, Faculty of Physics, Department of Semiconductor Physics, Moldova; Moscow State Pedagogical University, Faculty of Physics, Russia	B.Sc. and M.Sc. in Physics/Physics of Semiconductors/ Physics Teaching✱	19/6/1985

3. Academic Ranks and Tenure in Institutes of Higher Education

Dates	Name of Institution and Department	Rank/Position
2/4/2022	HIT – Holon Institute of Technology, Faculty of Sciences	Full Professor
13/5/2016-2/4/2022	HIT – Holon Institute of Technology, Faculty of Sciences	Associate Professor
1/3/2012-13/5/2016	HIT – Holon Institute of Technology, Faculty of Sciences	Equivalent to Senior Lecturer

4. Offices in Academic Administration, contd.

1/10/2022-	Acting Dean, Faculty of Sciences, HIT
1/2019-1/2022	Head – Institute Excellence Committee, HIT
2012-present	Head – Laboratory for Synthesis and Investigation of Nanomaterials, HIT
2002-present	Scientific Adviser – Department of Molecular Chemistry and Materials Science, Weizmann Institute of Science

5. Professional Experience

2002-2011	Chief Scientist – NanoMaterials Ltd., Israel
1991-1996	Physics Teacher – Scientific high schools in Israel
1985-1990	Technology Engineer – Electrical Device Engineering Institute of Science, Kishinev, Moldova

✱ Thesis: The study of mechanism for high temperature edge luminescence of $ZnSe/Al_20_3$ epitaxial films (Supervisor: Prof. E.A. Senokosov)

PUBLICATIONS

A. Ph.D. Dissertation

"Synthesis and properties of pristine and alkali metal intercalated MoS_2/WS_2 fullerene-like nanoparticles", 2002 (82 pages) in English, Faculty of Chemistry, Department of Materials and Interfaces, Weizmann Institute of Science, Israel, Supervisors: Prof. R. Tenne; Prof. S. Reich

B. Articles in Refereed Journals

Published

*1. M. Krishnappa, S. Ghosh, P. Siva, Y. Feldman, I. Lapsker, O. Brontvein, T. Livneh, J.I. Martinez, J.A. Alonso, **A. Zak** (2026)
Phase-pure MoS_2 nanotubes with controlled crystallinity, templated by pre-prepared high-aspect-ratio MoO_3 nanowhiskers
J. of Materials Chemistry C, 6 August 2026
https://doi.org/10.1039/D6TC01871H
WoS: Q2, IF: 5.2 (2025)
SCImago: Q1, h-index: 216 (2025)
[A transparent peer review has been published]

*2. K. Wang, B. Geiss, R. Geiss, J.R. Neilson, **A. Zak**, J.B. Sambur (2026)
Quantifying chiral handedness of core-shell inorganic nanotubes *via* electron microscopy and diffraction
Nanoscale, 18(18), (9826-9833), published 14 May 2026
https://doi.org/10.1039/d6nr00074f
WoS: Q1, IF: 5.3 (2025)

*3. S. Dolić, V. Kojić, **A. Zak**, A. Laikhtman, H. Mo, T. Čižmar, I. Erceg, L. Klobučar, I.S.S. Rakić, K. Juraić, A. Gajović (2026)
Enhancing the electrical performance of formamidinium perovskites through WS_2 nanotube incorporation
ACS Omega, 11(18), (26411-26420), published 30 April 2026
https://doi.org/10.1021/acsomega.5c11459
WoS: Q2, IF: 5.1 (2025)

*4. X. Han, Z. Qi, V. Kundrat, H. Li, Z. Li, X. Guo, P. Mao, W. Zheng, S. Hou, R. Liu, H. Wu, P. Wang, **A. Zak**, W. Liu, R Tenne, Y. Guo (2026)
Very-large-scale mimetic optogenetic synapses for physical reservoir computing
Nature Communications, published 10 January 2026
https://doi.org/10.1038/s41467-025-68229-8
WoS: Q1, 17.2 (2024), JCR citations: 3

*5. E. Faella, L. Lozzi, L. Camilli, **A. Zak**, F. Giubileo, A. Di Bartolomeo, M. Passacantando (2025)
Light effects on graphene/tungsten disulfide nanotubes/graphene heterostructure
Nanotechnology, 36(32), 325501, published 8 August 2025
https://doi.org/10.1088/1361-6528/adf2b1
WoS: Q2, 2.8 (2024), JCR citations: 3

*6. A. Colosimo, A. Crut, N. Lascoux, C. Panais, A. Casto, F. Vialla, V. Demontis, L. Martini, P. Rosi, E. Rotunno, G.C. Gazzadi, M. Beleggia, M. Krishnappa, **A. Zak**, F. Beltram, F. Rossella, F. Vallée, N. Del Fatti, F. Banfi, P. Maioli (2025)
Single MoS_2 nanotube experimental optical extinction cross section
The J. of Physical Chemistry C – Special Issue *"Naomi Halas and Peter Nordlander Festschrift"*
129(10), (5086-5094) published 27 February 2025
https://doi.org/10.1021/acs.jpcc.4c08613
WoS: Q2, IF: 3.5 (2023), JCR citations: 3

*7. R. Rosentsveig, Y. Feldman, V. Kundrat, I. Pinkas, **A. Zak**, R. Tenne (2025)
Long-term aging of multiwall nanotubes and fullerene-like nanoparticles of WS_2
J. of Solid State Chemistry, 346, (Art. No.125259), first published online 15 February 2025
https://doi.org/10.1016/j.jssc.2025.125259
WoS: Q2, IF: 3.0 (2023), JCR citation: 1

*8. A. Pelella, L. Camilli, F. Giubileo, **A. Zak**, M. Passacantando, Y. Guo, K. Intonti, A. Kumar, A. Di Bartolomeo (2025)

Ambipolar conduction in gated tungsten disulphide nanotube
Nanoscale, 17, (2052-2060) first published 3 December 2024
https://doi.org/10.1039/d4nr04877f
WoS: Q1, IF: 6.1 (2023), JCR citations: 12

*9. A. Dutta, K. Manjunath, H. Porat, R. Lavi, A. Lal, M. Kumar Yadav, V. Mandić, G. Makrinich, A. Laikhtman, **A. Zak**, A. Borenstein (2024)
Plasma-treated 1D transition metal dichalcogenides for efficient electrocatalytic hydrogen evolution reaction
J. of Materials Chemistry A, 12(37), (25176-25185), first published 8 August 2024
https://doi.org/10.1039/D4TA02976C
WoS: Q1, IF: 10.8 (2023), JCR citations: 5

*10. A. Pelella, A. Kumar, K. Intonti, O. Durante, S. De Stefano, X. Han, Z. Li, Y. Guo, F. Giubileo, L. Camilli, M. Passacantando, **A. Zak**, A. Di Bartolomeo (2024)
WS_2 nanotube transistor for photodetection and optoelectronic memory applications
Small, 20(44), (2403965-1–2403965-9), first published 12 July 2024
https://doi.org/10.1002/smll.202403965
WoS: Q1, IF: 13.5 (2023), JCR citations: 24

*11. S.R. Kadam, K. Manjunath, S. Ghosh, M.B. Sreedhara, A. Neyman, A. Upcher, E. Nativ Roth, L. Houben, **A. Zak**, A.N. Enyashin, R. Bar-Ziv, M. Bar-Sadan (2024)
Nanotubes and other nanostructures of VS_2, WS_2 and MoS_2: Structural effects on the hydrogen evolution reaction
Applied Materials Today, 39 (Article No.102288), published online 15 June 2024
DOI:10.1016/j.apmt.2024.102288
WoS: Q1, IF: 7.8 (2023), JCR citations: 10

*12. V. Kundrát, L. Novák, K. Bukvišová, J. Záleśák, E. Kolíbalová, R. Rosentsveig, M.B. Sreedhara, H. Shalom, L. Yadgarov, **A. Zak**, M. Kolíbal, R. Tenne (2024)
Mechanism of WS_2 nanotube formation revealed by *in Situ/ex Situ* imaging
ACS Nano, 18(19), (12284-12294), published May 2024
https://doi.org/10.1021/acsnano.4c01150
WoS: Q1, IF: 16.2 (2023), JCR citations: 15

*13. S. Dey, A. Roy, S.B. Mujib, K. Manjunath, **A. Zak**, G. Singh (2024)
Addressing irreversibility and structural distortion in WS_2 inorganic fullerene-like nanoparticles: Effects of voltage cut-off experiments in beyond Li+-ion storage applications
ACS Omega, 9(15), (17125-17136), published April 2024
https://doi.org/10.1021/acsomega.3c09758
WoS: Q2, IF: 4.0 (2022), JCR citations: 6

*14. J.I. Martinez, A. Laikhtman, **A. Zak**, M. Sezen, J.A. Alonso (2024)
Implantation of Gallium into layered WS_2 nanostructures facilitated by hydrogenation
Small, 20(30), (2312235-1–2312235-10), first published 3 March 2024
https://doi.org/10.1002/smll.202312235
WoS: Q1, IF: 13.2 (2022), JCR citation: 1

*15. E. Magee, F. Xie, S. Farris, A. Dsouza, C. Constantinidou, **A. Zak**, R. Tenne, T. McNally (2023)
Polyelectrolyte complexation of Chitosan and WS_2 nanotubes
Advanced Materials Interfaces, 11(6), (2300501-1–2300501-15), published December 2023
https://doi.org/10.1002/admi.202300501
WoS: Q2, IF: 5.7 (2022), JCR citations: 6

*16. P.N. Immanuel, S-J Hiang, P. Taank, A. Goldreich, J. Prilusky, A. Byregowda, R. Carmieli, H. Shalom, A. Leybovich, **A. Zak**, N. Aggarwal, K.V. Adarsh, L. Yadgarov (2023)
Enhanced photocatalytic activity of Cs_4PbBr_6/WS_2 hybrid nanocomposite
Advanced Energy and Sustainability Research, 5(2), (2300193-1–2300193-11)
published December 2023
https://doi.org/10.1002/aesr.202300193
WoS: Q2 (JCI), IF: 5.8 (2022), JCR citations: 7

*17. V. Kundrát, R. Rosentsveig, K. Bukvišova, D. Citterberg, M. Kolíbal, K. Shachar, I. Pinkas, O. Yaffe, **A. Zak**, T. Reshef (2023)
Submillimetre-long WS_2 nanotubes: The pathway to inorganic buckypaper
Nano Letters, 23(22), (10259-20266), published 22 November 2023
https://doi.org/10.1021/acs.nanolett.3c02783
WoS: Q1, IF: 10.2 (2023), JCR citations: 19

*18. A. Dutta, O. Breuer, K. Manjunath, R. Minnes, **A. Zak**, A. Borenstein (2023)
1D transition-metal dichalcogenides/carbon core-shell composites for the hydrogen evolution reaction
J. of Materials Chemistry A, 11(40), (21806-21816), published September 2023
https://doi.org/10.1039/d3ta04416e
WoS: Q1, IF: 11.6 (2022), JCR citations: 21

*19. N.V. Kamanina, A.S. Toikka, Y.V. Barnash, L.O. Fedorova, R.M. Tarkan, Yu. A. Zubtcova, P.V. Kuzhakov, S.V. Likhomanova, **A. Zak** (2023)
Nematic liquid crystal-MoS_2 nanoparticles innovative system for optoelectronic displays and modulators
Liquid Crystals and Their Application, 23(2), (52-62) published April-June 2023
https://api.semanticscholar.org/CorpusID:259719542
WoS: Q4, IF: 0.3 (2023), JCR citations: 2

*20. Y. Niu, L. Li, Z. Qi, H.H. Aung, X. Han, R. Tenne, Y. Yao, **A. Zak**, Y. Guo (2023)
OD van der Waals interfacial ferroelectricity
Nature Communications, 14(1), (5578), published March 2023
WoS: Q1, IF: 17.0 (2022), JCR citations: 21
https://doi.org/10.1038/s41467-023-41045-8
Research highlights in Nature Electronics (IF: 34.4), Vol.6, November 2023 (p.793) on this paper

*21. E. Magee, F. Tang, M. Walker, **A. Zak**, R. Tenne, T. McNally (2023)
Silane functionalization of WS_2 nanotubes for interaction with poly(lactic acid)
https://doi.org/10.1039/d3nr00583f
Nanoscale, 15(16), (7577-7590), published March 2023
WoS: Q1, IF: 7.891 (2023), JCR citations: 14

*22. S. Dey, K. Manjunath, **A. Zak**, G. Singh (2023)
WS_2 nanotube-embedded SiOC fibermat electrode for sodium-ion batteries
ACS Omega, 8(11), (10126-10138), published March 2023
https://doi.org/10.1021/acsomega.2c07464
WoS: Q2, IF: 4.132, JCR citations: 18

*23. S. Wei, M. Serra, S. Mourdikoudis, H. Zou, B. Wu, L. Děkanovsky, J. Sturala, J. Luxa, R. Tenne, **A. Zak**, Z. Sofer (2022)
Improved electrochemical performance of NTs-WS_2@C nanocomposites for lithium-ion and sodium-ion batteries
ACS Applied Materials and Interfaces, 14(41), (46386-46400), published October 2022
https://doi.org/10.1021/acsami.2c06295
WoS: Q1, IF: 10.382, JCR citations: 29

*24. Y. Sun, S. Xu, Z. Xu, J. Tian, M. Bai, Z. Qi, Y. Niu, H.H. Aung, X. Xiong, J. Han, C. Lu, J. Yin, S. Wang, Q. Chen, R. Tenne, **A. Zak**, Y. Guo (2022)
Mesoscopic sliding ferroelectricity enabled photovoltaic random access memory for material-level artificial vision system
Nature Communications, 13(1), Article No.5391 (1-8), published September 2022
published online 14 September 2022
https://doi.org/10.1038/s41467-022-33118-x
WoS: Q1, IF: 17.763, JCR citations: 79

*25. M.B. Sreedhara, S.S. Sinha, **A. Zak**, L. Yadgarov, R. Tenne (2022)
Review: Nanotubes and fullerene-like nanoparticles from layered transition metal dichalcogenides: Why do they form and what is their significance?
Zeitschrift fűr anorganische und allgemeine Chemie (ZAAC) - J. of Inorganic and General Chemistry 648(15), (e202200128-1–e202200128-10), published May 2022
Special issue dedicated to Prof. Mercouri Kanatzidis on the occasion of his 65th birthday

https://doi.org/10.1002/zaac.202200128
WoS: Q4, IF: 1,268, JCR citations: 3

*26. E. Magee, F. Tang, E. Ozdemir, M. Walker, T. Di Luccio, J.A. Kornfield, **A. Zak**, R. Tenne, T. McNally (2022)
WS_2 nanotubes as a 1D functional filler for melt mixing with poly(lactic acid): Implications for composites manufacture
ACS Applied Nano Materials, 5(5), (6385-6397), published May 2022
https://doi.org/10.1021/acsanm.2c00489
WoS: Q2, IF: 6.104, JCR citations: 13

27. L. Yue, D. Xu, Z. Wei, T. Zhao, T. Lin, R. Tenne, **A. Zak**, Q. Li, B. Liu (2022)
Size and shape's effects on the high-pressure behavior of WS_2 nanomaterials
Materials, 15(8), (2838), published April 2022
Part of the special issue: Advances in Structural Phase Transition and Physical Properties of Nanomaterials under High Pressure
https://doi.org/10.3390/ma15082838
WoS: Q2, IF: 4.042, JCR citations: 11

28. N. Kamanina, A. Toikka, Y Barnash, **A. Zak**, R. Tenne (2022)
Influence of surface relief on orientation of Nematic liquid crystals:
Polyimide doped with WS_2 nanotubes
Crystals, 12(3), (391), published March 2022
https://doi.org/10.3390/cryst12030391
WoS: Q2, IF: 2.688, JCR citations: 9

29. O. Golan, H. Shalom, I. Kaplan-Ashiri, S.R. Cohen, Y. Feldman, I. Pinkas, R.O. Almog, **A. Zak**, R. Tenne (2021)
Poly(L-lactic acid) reinforced with hydroxyapatite and tungsten disulfide nanotubes
Polymers, 13(21), (3851), published 8 November 2021
https://doi.org/10.3390/polym13213851
WoS: Q1, IF: 5.063, JCR citations: 11

30. H. Xia, X. Chen, ,S. Luo, F. Qin, A. Idelevich, S. Ghosh, T. Ideue, Y. Iwasa, **A. Zak**, R. Tenne, Z. Chen, W-T Liu, S. Wu (2021)
Probing the chiral domains and excitonic states in individual WS_2 tubes by second harmonic generation
Nano Letters, , 21(12), (4937-4943), published 11 June 2021
https://doi.org/10.1021/acs.nanolett.1c00497
WoS: Q1, IF: 12.709, JCR citations: 27

31. L. Rocher, A.S. Ylitalo, T. Di Luccio, R. Miscioscia, G. De Filippo, G. Pandolfi, F. Villani, **A. Zak**, G.H. Menary, A.B. Lennon, J.A. Kornfield (2021)
Interaction of poly L-Lactide and tungsten disulfide nanotubes studied by in situ X-ray scattering during expansion of PLLA/WS_2NT nanocomposite tubes
Polymers, 13(11), (1764-1—1764-19), published 27 May 2021
https://doi.org/10.3390/polym13111764
WoS: Q1, IF: 5.063, JCR citations: 10

32. S. Ghosh, G. Otorgust, A. Idelevich, O. Regev, I. Lapsker, D.Y. Lewitus, **A. Zak** (2021)
Reinforcement of poly (methyl methacrylate) by WS_2 nanotubes towards antiballistic applications
Composites Science and Technology, 207❶, (108736), published 3 May 2021
https://doi.org/10.1016/j.compscitech.2021.108736
WoS: Q1, IF: 8.788, JCR citations: 22

33. S.S. Sinha, L. Yadgarov, S.B. Aliev, Y. Feldman, I. Pinkas, C. Pallellappa, S. Ghosh, A. Idelevich, **A. Zak**, R. Tenne (2021)
MoS_2 and WS_2 nanotubes: Synthesis, structural elucidation and optical characterization
The J. of Physical Chemistry C: Energy, Materials & Catalysis,
Section C: Physical Properties of Materials & Interfaces

125(11), (6324-6340), published 11 March 2021
https://doi.org/10.1021/acs.jpcc.0c10784
WoS: Q2, IF: 4.480, JCR citations: 66

34. D. Binwal, K. Pramoda, **A. Zak**, M. Kaur, C. Pallellappa, C.N.R. Rao (2021)
Nanocomposites of 1D MoS_2 with polymer-functionalized nanotubes of carbon and borocarbonitride, and their HER activity
ACS Applied Energy Materials, 4(3), (2339-2347), published 8 February 2021
https://doi.org/10.1021/acsaem.0c02874
WoS: Q1, IF: 7.010, JCR citations: 28

35. A.K. Sonker, S. Roy, H.D. Wagner, **A. Zak**, X.M. Sui, R. Bajpai (2020)
Synergistic effect of crosslinking and dual reinforcement on the thermal and mechanical properties of polyvinyl alcohol
Polymer Composites, , 42(3), (1214-1223), published December 2020
https://doi.org/10.1002/pc.25894
WoS: Q2, IF: 2.980, JCR citations: 7

36. H. Shalom, T. Bendikov, Y. Feldman, N. Lachman, **A. Zak**, R. Tenne (2020)
Chemical control of the surface of WS_2 nanoparticles
Chemical Physics Letters, 761, (138052), published December 2020
https://api.semanticscholar.org/CorpusID:225149081
WoS: Q3, IF: 2.255, JCR citations: 14

37. S. Ghosh, V. Brüser, I. Kaplan-Ashiri, R. Popovitz-Biro, S. Peglow, J.I. Martínez, J.A. Alonso, **A. Zak** (2020)
Cathodoluminescence in single and multiwall WS_2 nanotubes: Evidence from quantum confinement and strain effect
Applied Physics Reviews, 7(4), October 2020 (041401), published online 21 October 2020
https://doi.org/10.1063/5.0019913
WoS: Q1, IF: 20.560, JCR citations: 27
[Chosen as a Featured Article. It will be displayed prominently on the journal's homepage; Also selected as Scilight❷ under the title "Tungsten disulfide nanotubes demonstrate useful luminescent behavior" written by Mara Johnson-Groh https://doi.org/10.1063/10.0002409; DOI: 10.1063/10.0002409]

38. N.V. Kamanina, Yu. A. Zubtcova, P.V. Kuzhakov, **A. Zak**, R. Tenne (2020)
Correlations between spectral, time and orientation parameters of liquid crystal cells with WS_2 nanoparticles
Liquid Crystals and Their Application (Russian Journal), 20(3), (41-48), published 29 September 2020
WoS: Q4, JCI: 0.27

39. A. Grillo, M. Passacantando, A. Zak, A. Pelella, A. Di Bartolomeo (2020)
WS_2 nanotubes: Electrical conduction and field emission under electron irradiation and mechanical stress
Small, 16(35), (2002880-1—2002880-9) published August 2020
https://doi.org/10.1002/smll.202002880Digital Object Identifier (DOI)
WoS: Q1, IF: 14.257, JCR citations: 65

40. N.V. Kamanina, Yu. A. Zubtsova. A.S. Toikka, S.V. Likhomanova, **A. Zak**, R. Tenne (2020)
Temporal characteristics of liquid crystal cell with WS_2 nanoparticles: Mesophase sensitization and relief features
Liquid Crystals and Their Application (Russian Journal), 20(1), (34-40), published March 2020
https://api.semanticscholar.org/CorpusID:216433747
WoS: Q4, JCI: 0.27, JCR citations: 11

41. C. Pallellappa, S. Ghosh, A. Idelevich, L. Rovinsky, T. Livneh, **A. Zak** (2020)
Solving the "MoS_2 nanotubes" synthetic enigma and elucidating the route for their catalyst-free and scalable production

ACS Nano, 14(3), (3004-3016), published February 2020
https://doi.org/10.1021/acsnano.9b07866
WoS: Q1, IF: 18.022, JCR citations: 96

42. S.S. Sinha, **A. Zak**, R. Rosentsveig, J. Pinkas, R. Tenne, L. Yadgarov (2020)
Size-dependent control of exciton-polariton interactions in WS_2 nanotubes
Small, 16(4), (1904390-1–1904390-10), published January 2020
[appears inside back cover]
https://doi.org/10.1002/smll.201904390
WoS: Q1, IF: 14.257, JCR citations: 45

43. D.M. Simić, D.B. Stojanović, M. Dimić, K. Mišković, M. Marjanović, Z. Burzić, P.S. Uskoković, **A. Zak**, R. Tenne (2019)
Impact resistant hybrid composites reinforced with inorganic nanoparticles and nanotubes of WS_2
Composites Part B: Engineering, 176, (107222), published November 2019
https://doi.org/10.1016/j.compositesb.2019.107222
WoS: Q1, IF: 10.133, JCR citations: 37

44. P. Bertasius, M. Shneider, J. Macutkevic, V. Samulionis, J. Banys, **A. Zak** (2019)
Dielectric properties of epoxy-matrix composites with tungsten disulfide nanotubes
J. of Nanomaterials, Special Issue: Synthesis, Characterization, and Applications of Polymer Nanocomposites, Vol.2019, Article ID 5761439 (8 pages), published August 2019
https://doi.org/10.1155/2019/5761439
WoS: Q3, IF: 3.499, JCR citation: 1

45. Y.J. Zhang, T. Ideue, M. Onga, F. Qin, R. Suzuki, **A. Zak**, R. Tenne, J.H. Smet, Y. Iwasa (2019)
Letter: Enhanced intrinsic photovoltaic effect in tungsten disulphide nanotubes
Nature, 570, (349-363), published June 2019
DOI: 10.1038/s41586-019-1303-3
WoS: Q1, IF: 63.580, JCR citations: 378

46. M. Kolíbal, K. Bukvišová, L. Kachtík, **A. Zak**, L. Novák, T. Šikola (2019)
Formation of tungsten oxide nanowires by electron-beam-enhanced oxidation of WS_2 nanotubes and platelets
The J. of Physical Chemistry C, 123(14), (9552-9559), published March 2019
https://doi.org/10.1021/acs.jpcc.9b00592
WoS: Q2, IF: 4.480, JCR citations: 6

47. F. Qin, T. Ideue, W. Shi, X-X Zhang, M. Yoshida, **A. Zak**, R. Tenne, T. Kikitsu, D. Inoue, D. Hashizume, Y. Iwasa (2018)
Diameter-dependent superconductivity in individual WS_2 nanotubes
Nano Letters, 18(11), (6789-6794), published October 2018
[Research highlight of this paper appeared in the November issue of Nature Nanotechnology under the title "A furled superconductor" written by Benjamin Heinrich]
https://doi.org/10.1021/acs.nanolett.8b02647
WoS: Q1, IF: 12.709, JCR citations: 38

48. Y.J. Zhang, M. Onga, F. Qin, W. Shi, **A. Zak**, R. Tenne, J. Smet, Y. Iwasa (2018)
Optoelectronic response of a WS_2 tubular ρ-n junction
2D Materials, 5(3), 035002 (8 pages), published April 2018
https://doi.org/10.1088/2053-1583/aab670
WoS: Q2, IF: 7.687, JCR citations: 50

49. J.I. Martinez, A. Laikhtman, H.R. Moon, **A. Zak**, J.A. Alonso (2018)
Modelling of adsorption and intercalation of hydrogen on/into tungsten disulphide multilayers and multiwall nanotubes
Physical Chemistry Chemical Physics, 20(17), (12061-12074), published April 2018
https://doi.org/10.1039/c8cp01437j
WoS: Q1, IF: 3.861, JCR citations: 6

50. E. Macchia, **A. Zak**, R.A. Picca, K. Manoli, C. Di Franco, N. Cioffi, G. Scamarcio, R. Tenne, L. Torsi (2018)
Improved performance p-type Polymer (P3HT)/n-type nanotubes (WS_2) electrolyte gated thin-film transistor
MRS Advances (Biomaterials and Soft Materials), 3(27), (1525-1533), published March 2018
https://doi.org/10.1557/adv.2018.311
WoS: Q4, JCI: 0.13, JCR citations: 4

51. A. Yu. Polyakov, **A. Zak**, R. Tenne, E.A. Goodilin, K.A. Solntsev (2018)
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