HIT - HOLON INSTITUTE OF TECHNOLOGY

Date: 2nd June 2024

Name Dror (first) Malka (last) Ph.D. (acad. degree)

Faculty Engineering *Department* Communication Eng.

Email: drorm@hit.ac.il

A. EDUCATION

Period of Study (dates)	Name of University (including city and country if not in Israel)	Subject	Degree or Professional Licence	Date of Award
2004-2008	HIT - Holon Institute of Technology, Faculty of Engineering	Electrical Engineering	B.Sc.	2008
2005-2008	HIT - Holon Institute of Technology, Faculty of Science	Applied Mathematics	B.Sc.	2008
2008-2010	HIT - Holon Institute of Technology, Faculty of Engineering	Electrical Engineering	M.Sc.	2010
2010-2011	Bar Ilan University, Faculty of Engineering	Electrical Engineering	Completion of Graduate Thesis	2011
2011-2015	Bar Ilan University, Faculty of Engineering	Electrical Engineering	Ph.D.	May 2015

Title of Master's Thesis: Photonic Crystal based 1XN intensity, wavelength and polarization splitters/couplers

Name of Supervisors: Prof. Z. Zalevsky

Title of Doctoral Dissertation: Design of waveguide devices for fibers and data transmission applications

Names of Supervisors: Prof. Z. Zalevsky

B. FURTHER STUDIES

Period of Study (dates)	Name of University (including city and country if not in Israel)	Subject	Degree or Professional Licence	Date of Award
2015-2017	Bar Ilan University, Faculty of Engineering	Electrical Engineering	Post-doc	2017

C. ACADEMIC AND PROFESSIONAL EXPERIENCE

Period (dates)	Name of Institution/company (city, country)	Department	Rank/Function
2006-2011	HIT - Holon Institute of Technology, Holon, Israel	Student Union	Academic teaching instructor
2009-2012	Weizmann Institute Rehovot, Israel	Davidson Institute of Science Education	Project advisor
Oct-Feb/2010	Hermelin College, Netanya, Israel	School of Technicians	Lecturer
2011-2013	Bar Ilan University, Ramat Gan, Israel	Faculty of Engineering	Laboratory guide
2017-2019	MostlyTek, Modi'in, Israel	Photonics	Adviser and Team Leader
2018-2022	Dustphotonics, Modi'in, Israel	Silicon Photonics	Adviser
2018-2019	Open University of Israel	Physics	Lecturer
2007-present	**HIT - Holon Institute of Technology, Holon, Israel**	**Faculty of Engineering**	

	Function:
2007-2012	Teaching Assistant
2012-1/10/2015	מורה משנה ב׳
10/2015-10/2019	**Lecturer**
1/10/2019-	**Senior Lecturer with tenure**

D. PROFESSIONAL AND PUBLIC ACTIVITIES

Period (dates)	Name of Institution/Conference/ Journal/Exhibitions/Projects (city, country)	Occasion
2006-2008	The ISEF Foundation, Israel	Volunteer in projects – ISEF Fund and Microsoft
2012-2013	The Society for Information Display (SID), Israel	Assistant Director and Member
2019	Crystals – Special Issue "Optical Devices based on Slot Waveguide Structures", Switzerland	Guest Editor
2020	Bheemanna Khandre Institute of Technology, Bhalki, Karnataka State, India	Thesis evaluation for Ph.D. candidate: Savita Soma of Visvesvaraya Technological University, Belagavi, Karnataka State, India. Title of thesis – Realization of optical logical devices using photonic crystals
2020	Applied Sciences: Special Issue "Recent Advances in Silicon Photonics Design"	Special Issue Editor
2021	Materials	Member of Reviewer Board
2021	Photonics	Member of Reviewer Board
2022	Applied Sciences: Special Issue "New Trends in Fiber Laser and Laser Amplifiers"	Special Issue Editor
2023	Applied Sciences:Waveguide Techonology: Development and Applications	Special Issue Editor
2024	Applied Sciences: New Insights into Random Optisc and Lasers	Special Issue Editor
2024	3rd Int'l. Forum on Lasers, Optics and Photonics (LOPFORUM2024), Madrid, Spain, to be held 12-14 August 2024	Organizing Committee Member

Reviewer:

Period (dates)	Name of Journal
2014	Spectroscopy Letters
2016	The Photonics Journal
2016, 2021, 2023-2024	Optics Communications
2016-2017	Applied Surface Science
2017	IEEE Photonics Technology Letters

D. PROFESSIONAL AND PUBLIC ACTIVITIES, contd.

Reviewer:

Period (dates)	Name of Journal
2017	IEEE Photonics Journal
2017	International Journal of Electronics and Communications
2017	Optical Materials Express
2017-2020	Applied Sciences-Basel
2018	Applied Optics
2018	Universe
2018	Symmetry-Basel
2018	Instruments
2018	Journal of the Optical Society of America – JOSA A
2018-2022	Materials
2018-2023	Sensors
2018-2023	Photonics
2018-2020	Polymers
2018-2020	Micromachines
2018-2023	Nanomaterials
2018-2023	Energies
2018-2020	Data
2018-2023	Coatings
2018-2020	Chemosensors
2018-2021, 2023	Electronics
2019, 2022-2023	Crystals
2019, 2022-2024	Optics and Lasers in Engineering
2020, 2023-2024	Optical Fiber Technology
2020, 2022-2024	Optik –International Journal for Light and Electron Optics
2020	Journal of Optical Communications
2020	Photonic Network Communications
2020	Microwave and Optical Technology Letters
2021	Advances in Opthalmology Practice and Research
2021	Recent Patents on Nanotechnology
2021	International Journal of Optis and Photonic engineering
2021	Results in Physics
2021	Optics Letters
2021	Journal of Physics D: Applied Physics
2022	IEEE Journal of Quantum Electronics
2022	OSA Optics Continuum
2022	Sustainability
2022	Qubs
2022	Molecules
2022	Ijms
2023	Nature Scientific Reports
2023	IEEE Transactions on Circuits and Systems II: Express Briefs
2023-2024	Optical and Quantum Electronics

D. PROFESSIONAL AND PUBLIC ACTIVITIES, contd.

Period (dates)	Name of Journal
2023-2024	Optics and Laser Technology
2023	International Journal of Molecular Sciences
2023	Inventions
2023-2024	IEEE Acccess
2024	Qeios
2024	Photonics and Nanostructures – Fundamentals and Applications
2024	Materials & Design

E. ACADEMIC AND PROFESSIONAL AWARDS

(prizes, fellowships, scholarships, etc.)

Year	Name of Institution (city, country)	Occasion
2008	Intel, Israel	Award for excellence in studies
2007-2008	HIT – Holon Institute of Technology, Holon, Israel	President's Award
2009	ISEF Fund, Tel-Aviv, Israel	ISEF Award
2013	Bar Ilan University, Ramat Gan, Israel	Award for excellence in research of nanotechnology
2015	Bar Ilan University, Ramat Gan, Israel	Award for excellence in research of nanotechnology
2015-2016	HIT – Holon Institute of Technology, Holon, Israel	Award for excellence in research
2016	Elsevier, Amsterdam, The Netherlands	Certificate of outstanding contribution in reviewing for Optics Communications
2016-2017	HIT – Holon Institute of Technology, Holon, Israel	Award for excellence in research
2017	Elsevier, Amsterdam, The Netherlands	Certificate of outstanding contribution in reviewing for Applied Surface Science
2017-2018	HIT – Holon Institute of Technology, Holon, Israel	Award for excellence in teaching, research, creativity, and contribution to the institute and the community
2018-2019	HIT – Holon Institute of Technology, Holon, Israel	Award for excellence in teaching, research, creativity, and contribution to the institute and the community
2019-2020	HIT – Holon Institute of Technology, Holon, Israel	Award for excellence in research, teaching, and contribution to the institute and the community
2020-2021	HIT – Holon Institute of Technology, Holon, Israel	Award for excellence in research, teaching, and contribution to the institute and the community

E1. RESEARCH GRANTS

Year	Name of Institution (city, country)	Occasion/Amount
2017-2020	Horizon 2020	Research grant: Internet of Radio Light 22 participants[1] Amount: €267,500,000

F. MEMBERSHIP IN PROFESSIONAL SOCIETIES

Year	Society (country)
2019	SPIE, Washington, USA

[1] Brunel University, London, UK; Aeroflex Ltd., UK; Association ISEP – Edouard Branly, France; Mostlytek Ltd., Israel; Societe D'Economie Mixte Issy – Media (SEM ISSY MEDIA), France; Building Research Establishment Ltd., UK; Fraunhofer Gesallschaft zur Forderung der Angewandten Forschung EV, Germany; National Center for Scientific Research "Demokritos", Greece; Viotech Communications Sarl, France; Politehnika Warszawska, Poland; Arcelik A.S., Turkey; Runel Ngmt Ltd., Israel; **HIT – Holon Institute of Technology, Israel**; Ferrovial Construccion SA, Spain; Oledcomm SAS, France; Tsinghua University, China; Beijing Leadpcom Technology Co. Ltd., China Shanghai Feilo Acoustics Co. Ltd., China; Centro de Innovacion de Infraestructuras Inteligentes, Spain; Joada, France; University of Leicester, UK; Viavi Solutions UK Limited, UK

G. STUDENTS SUPERVISED BY CANDIDATE

HIT – Holon Institute of Technology does not currently have an accreditation for granting research theses (M.Sc.) or Dissertation (Ph.D.) degrees

G1. DOCTORAL STUDENTS

Year	Name of Student	Title of Thesis/Final Project	Name of Academic Institution
2024	Nuphar Avital	Explicit and implicit expressions of discourse comprehension monitoring by skilled and struggling comprehenders in online learning environment	BIU-Bar-Ilan University

G2. M.A./M.Sc. STUDENTS *(please indicate if degree is with "thesis" or "final project")*

Year	Name of Student	Title of Thesis/Final Project	Name of Academic Institution
2014-2015	Oleg Levinsky	**FINAL PROJECT:** Simulation design of optical splitter based on PCF and PBG	HIT – Holon Institute of Technology
2018-2019	Rami Dadabayev	**FINAL PROJECT:** Design of optical demux for visible light communication based on photonic crystal fiber/polymer optical fiber	HIT – Holon Institute of Technology
2019-2020	Eyal Samoi	**FINAL PROJECT:** MI power combiner based on Slot waveguide structure	HIT – Holon Institute of Technology
2019-2021	Omer Brand	**FINAL PROJECT:** Design of TE/TM polarization power combiner Based on slot waveguide structure	HIT – Holon Institute of Technology

PUBLICATIONS

C. REFEREED ARTICLES (ranked by either WoS or SCImago)
(published)

*1. O. Isakov, A. Frishman, **D. Malka** (2024)
Data center four-channel multimode interference multiplexer
using silicon nitride technology
Nanomaterials, 14(6), (486)
https://doi.org/10.3390/nano14060486
WoS: Q1, IF: 5.3
SCImago: Q1, h-index: 126, Scopus citation: 1
[Google scholar citation: 1]

*2. E.E. Krause, **D. Malka** (2023)
Optimizations of double titanium nitride thermos-optic phase-shifter heaters using SOI technology
Sensors, 23(20), (8587)
https://doi.org/10.3390/s23208587
WoS: Q2, IF: 3.9, JCR citation: 2
SCImago: Q1, h-index: 219, Scopus citation: 2
[Google scholar citations: 2]

*3. Y. Pugachov, M. Gulitski, **D. Malka** (2023)
Photonic crystal flip flops: Recent developments in all optical memory components
Materials, 16(19), (6467)
https://doi.org/10.3390/ma16196467
WoS: Q2, IF: 3.4, JCR citation: 2
SCImago: Q2, h-index: 148, Scopus citation: 3
[Google scholar citations: 3]

*4. E. Ohana, **D. Malka** (2023)
O-band grating couplers using silicon nitride structures
Applied Sciences-Basel, 13(17), (9951)
https://doi.org/10.3390/app13179951
WoS: Q2, IF: 2.7, JCR citation: 5
SCImago: Q2, h-index: 101, Scopus citation: 5
[Google scholar citation: 5]

*5. A. Frishman, **D. Malka** (2023)
An optical 1x4 power splitted based on silicon-nitride MMI using strip waveguide structures
Nanomaterials, 13(14), (2077)
https://doi.org/10.3390/nano13142077
WoS: Q1, IF: 5.3, JCR citation: 10
SCImago: Q1, h-index: 102, Scopus citation: 9
[Google scholar citations: 12]

* Publications since latest promotion

C. REFEREED ARTICLES, (ranked by either WoS or SCImago), **contd.**

*6. O. Brand, B. Wolfston, **D. Malka** (2023)
A compact polarization MMI combiner using silicon slot-waveguide structures
Micromachines, 14(6), (1203)
https://doi.org/10.3390/mi14061203
WoS: Q2, IF: 3.4, JCR citations: 4
SCImago: Q2, h-index: 64, Scopus citations: 5
[Google scholar citations: 5]

*7. Y. Pugachov, M. Gulitski, O. Mizrahi, **D. Malka** (2023)
Design of all-optical logic half-added based on photonic crystal multi-ring resonator
Symmetry, 15(5), (1063)
https://doi.org/10.3390/sym15051063
WoS: Q2, IF: 2.7, JCR citations: 7
SCImago: Q2, h-index: 76, Scopus citations: 9
[Google scholar citations: 9]

*8. J. Menahem, **D. Malka** (2022)
"A two-channel silicon nitride multimode interference coupler with low back reflection"
Applied Sciences-Basel, 12, (11812)
https://doi.org/10.3390/app122211812
WoS: Q2, IF: 2.838, JCR citations: 11
SCImago: Q2, h-index: 75, Scopus citations: 13
[Google scholar citations: 13]

*9. N. Katash, S. Khateeb, **D. Malka** (2022)
"Combining four gaussian lasers using silicon nitride MMI slot waveguide structure"
Micromachines, 13(10), (1680)
https://doi.org/10.3390/mi13101680
WoS: Q2, IF: 3.523, JCR citations: 11
SCImago: Q2, h-index: 52, Scopus citations: 11
[Google scholar citations: 12]

*10. E. Sitbon, R. Ostrovsky, **D. Malka** (2022)
"Optimizations of thermo-optic phase shifter heaters using doped silicon heaters in Rib waveguide structure"
Photonics and Nanostructures - Fundamentals and Applications, 51, (101052)
http://doi.org/10.1016/j.photonics.2022.101052
WoS: Q2, IF: 3.064, JCR citations: 8
SCImago: Q2, h-index: 43, Scopus citations: 7
[Google scholar citations: 11]

*11. J. Menahem, **D. Malka** (2022)
"1×4 wavelength demultiplexer C-Band using cascaded multimode interference on SiN buried waveguide structure"
Materials, 15(14), (5067)
WoS: Q1, IF: 3.748, JCR citations: 14
SCImago: Q2, h-index: 128, Scopus citations: 18
[Google scholar citations: 20]

* Publications since latest promotion

C. REFEREED ARTICLES, (ranked by either WoS or SCImago), **contd.**

*12. S. Khateeb, N Katash, **D. Malka** (2022)
"O-Band multimode interference coupler power combiner using slot-waveguide structures"
Applied Sciences-Basel,12(13), (6444 – 10 pages)
WoS: Q2, IF: 2.838, JCR citations: 7
SCImago: Q2, h-index: 75, Scopus citations: 9
[Google scholar citations: 11]

*13. V. Moshaev, Y. Leibin, **D. Malka** (2021)
"Optimizations of Si PIN diode phase-shifter for controlling MZM quadrature bias point using SOI rib waveguide technology"
Optics and Laser Technology, 138, (106844)
WoS: Q1, IF: 4.939, JCR citations: 23
SCImago: Q1, h-index: 83, Scopus citations: 25
[Google scholar citations: 28]

*14. B. Gelkop, L. Aichnboim, **D. Malka** (2021)
"RGB wavelength multiplexer based on polycarbonate multicore polymer optical fiber"
Optical Fiber Technology, 61, (102441-1–102441-7)
WoS: Q2, IF: 2.800, JCR citations: 17
SCImago: Q2, h-index: 64, Scopus citations: 19
[Google scholar citations: 23]

*15. E. Loudashkin, **D. Malka** (2020)
"A three demultiplexer C-band using angled multimode interference in GaN-SiO_2 slot waveguide structures"
Nanomaterials, 10(12), (2338)
WoS: Q1, IF: 5.719, JCR citations: 21
SCImago: Q1, h-index: 80, Scopus citations: 24
[Google scholar citations: 28]

*16. M. Gindi, A. Melamed, **D. Malka** (2020)
"A four green-light demultiplexer using a multi gallium nitride slot-waveguide structure"
Photonics and Nanostructures – Fundamentals and Applications, 42, (100855)
WoS: Q2, IF: 3.064, JCR citations: 11
SCImago: Q2, h-index: 43, Scopus citations: 14
[Google scholar citations: 15]

*17. **D. Malka** (2020)
"A four green TM/Red TE demultiplexer based on multi slot-waveguide structures"
Materials, 13(14), (3219)
WoS: Q1, IF: 3.748, JCR citations: 19
SCImago: Q2, h-index: 128, Scopus citations: 22
[Google scholar citations: 24]

* Publications since latest promotion

C. REFEREED ARTICLES, (ranked by either WoS or or SCImago), **contd.**

*18. E. Samoi, Y. Benezra, **D. Malka** (2020)
"An ultracompact 3x1 MMI power-combiner based on Si slot-waveguide structures"
Photonics and Nanostructures – Fundamentals and Applications, 39, (100780-1–100780-7)
WoS: Q2, IF: 3.064, JCR citations: 27
SCImago: Q2, h-index: 43, Scopus citations: 33
[Google scholar citations: 39]

*19. H. Abdullah, Md.R. Islam, K. Ahmed, **D. Malka**, T.K. Nguyen, Md.N. Hossain, B.K. Paul, V. Dhasarathan (2020)
"Theoretical analysis of highly temperature-sensitive fem based optical sensor in the infrared range"
Optik – Int'l. J. for Light and Electron Optics, 205, (164060-1–164060-10)
[available online 12 December 2019 https://doi.org/10.1016/j.ijleo.2019.164060]
WoS: Q2, IF: 2.840, JCR citations: 8
SCImago: Q2, h-index: 79, Scopus citations: 8
[Google scholar citations: 8]

20. **D. Malka**, B. Adler-Berke, Y. Tischler, Z. Zalevsky (2019)
"Improving Raman spectra of pure silicon using super-resolved method"
J. of Optics (United Kingdom), 21(7), (075801 – 6 pages)
WoS: Q3, IF: 2.077, JCR citations: 22
SCImago: Q2, h-index: 95, Scopus citations: 22
[Google scholar citations: 23]

21. R. Dadabayev, **D. Malka** (2019)
"A visible light RGB wavelength demultiplexer based on polycarbonate multicore polymer optical fiber"
Optics and Laser Technology, 116, (239-245)
[available online 29 March 2019: https://doi.org/10.1016/j.optlastec.2019.03.034]
WoS: Q1, IF: 4.939, JCR citations: 32
SCImago: Q1, h-index: 83, Scopus citations: 34
[Google scholar citations: 39]

22. R. Dadabayev, N. Shabairou, Z. Zavelsky, **D. Malka** (2019)
"A visible light RGB wavelength demultiplexer based on silicon-nitride multicore PCF"
Optics and Laser Technology, 111, (411-416)
[available online 21 October 2018: https://doi.org/10.1016/j.optlastec.2018.10.016]
WoS: Q1, IF: 4.939, JCR citations: 37
SCImago: Q1, h-index: 83, Scopus citations: 40
[Google scholar citations: 44]

23. N. Shabairou, E. Cohen, O. Wagner, **D. Malka**, Z. Zavelsky (2018)
"Color image identification and reconstruction using artificial neural networks on multi-mode fiber images: Towards an all-optical design"
Optics Letters, 43(22), (5603-5606)
WoS: Q2, IF: 3.560, JCR citations: 38
SCImago: Q1, h-index: 277, Scopus citations: 39
[Google scholar citations: 49]

* Publications since latest promotion

C. REFEREED ARTICLES, (ranked by either WoS or or SCImago), **contd.**

24. **D. Malka**, G. Katz (2018)
"An eight-channel C-band demux based on multicore photonic crystal fiber"
Nanomaterials, 8(10), 845 (10 pages)
WoS: Q1, IF: 5.719, JCR citations: 33
SCImago: Q1, h-index: 80, Scopus citations: 36
[Google scholar citations: 38]

25. T. Shoresh, N. Katanov, **D. Malka** (2018)
"1x4 MMI visible light wavelength demultiplexer based on GaN slot waveguide structures"
Photonics and Nanostructures – Fundamentals and Applications, 30, (45-49)
DOI: 10.1016/j.photonics.2018.04.010
WoS: Q2, IF: 3.064, JCR citations: 25
SCImago: Q2, h-index: 43, Scopus citations: 29
[Google scholar citations: 33]

26. L. Nikolaevsky, T. Shchori, **D. Malka** (2018)
"Modeling a 1x8 MMI green light power splitter based on
Gallium-Nitride slot waveguide structure"
IEEE Photonics Technology Letters, 30(8), (720-723)
WoS: Q3, IF: 2.414, JCR citations: 23
SCImago: Q1, h-index: 161, Scopus citations: 29
[Google scholar citations: 28]

27. H. Pinhas, **D. Malka**, Y. Danan, M. Sinvani, Z. Zalevsky (2017)
"Design of fiber-integrated tunable thermo-optic C-band filter based on coated silicon slab"
J. of the European Optical Society-Rapid Publications, 13(1), (32 – 10 pages)
WoS: Q3, IF: 2.021, JCR citations: 11
SCImago: Q2, h-index: 34 , Scopus citations: 12
[Google scholar citations: 14]

28. Y. Danan, **D. Malka**, N. Ozana, Z. Zalevsky (2017)
"Nanostructures with periodic heating-cooling cycles for photoacoustic imaging using continuous-wave illumination"
J. of Nanophotonics, 12(1), (012507)
WoS: Q4, IF: 1.179, JCR citation: 1
SCImago: Q3, h-index: 40 , Scopus citation: 1
[Google scholar citation: 1]

29. **D. Malka**, A. Vegerhof, E. Cohen, M. Rayhshtat, A. Libenson, M.A. Shalev, Z. Zalevsky (2017)
"Improved diagnostic process of multiple sclerosis using automated detection and selection process in Magnetic Resonance Imaging"
Applied Sciences-Basel, Issue 7(8), 831 (13 pages)
WoS: Q2, IF: 2.838, JCR citations: 8
SCImago: Q2, h-index: 75, Scopus citations: 8
[Google scholar citations: 10]

30. **D. Malka**, E. Cohen, Z. Zalevsky (2017)
"Design of 4x1 power beam combiner based on multicore photonic crystal fiber"
Applied Sciences-Basel, 7(7), (695 – 9 pages)
WoS: Q2, IF: 2.838, JCR citations: 28
SCImago: Q2, h-index: 75, Scopus citations: 33
[Google scholar citations: 37]

C. REFEREED ARTICLES, (ranked by either WoS or or SCImago), **contd.**

31. O. Katz, **D. Malka** (2017)
"Design of novel SOI 1x4 optical power splitter using seven horizontally slotted waveguides"
Photonics and Nanostructures – Fundamentals and Applications, 25, (9-13)
WoS: Q2, IF: 3.064, JCR citations: 32
SCImago: Q2, h-index: 43, Scopus citations: 37
[Google scholar citations: 36]

32. **D. Malka**, A. Peled (2017)
"Power splitting of 1x16 in multicore photonic crystal fibers"
Applied Surface Science, 417, (34-39)
WoS: Q1, IF: 7.392, JCR citations: 31
SCImago: Q1, h-index: 204, Scopus citations: 42
[Google scholar citations: 45]

33. G. Je, **D. Malka**, H. Kim, S. Hong, B.S. Shin (2017)
"A study on micro hydroforming using shock wave of 355nm UV-pulsed laser"
Applied Surface Science, 417, (244-249)
WoS: Q1, IF: 7.392, JCR citations: 22
SCImago: Q1, h-index: 204, Scopus citations: 25
[Google scholar citations: 29]

34. A. Vegerhof, E.A. Barnoy, M. Motiei, **D. Malka**, Y. Danan, Z. Zalevsky, R. Popovtzer (2016)
"Targeted magnetic nanoparticles for mechanical lysis of tumor cells by low-amplitude alternating magnetic field"
Materials – Special Issue Nanoprobes for Imaging, 9(11), (943) (12 pages)
WoS: Q1, IF: 3.748, JCR citations: 19
SCImago: Q2, h-index: 128, Scopus citations: 21
[Google scholar citations: 27]

35. B.B. Ben Zaken, T. Zanzury, **D. Malka** (2016)
"An 8-channel wavelength MMI demultiplexer in slot waveguide structures"
Materials – Special Issue Silicon Nanophotonics, 9(11), (881) (10 pages)
WoS: Q1, IF: 3.748, JCR citations: 49
SCImago: Q2, h-index: 128, Scopus citations: 54
[Google scholar citations: 57]

36. A. Vegerhof, M. Motei, A. Rudinzky, **D. Malka**, R. Popovtzer, Z. Zalevsky (2016)
"Thermal therapy with magnetic nanoparticles for cell destruction"
Biomedical Optics Express, 7(11), (4581-4594)
WoS: Q2, IF: 3.562, JCR citations: 15
SCImago: Q1, h-index: 93 , Scopus citations: 15
[Google scholar citations: 18]

37. Y. Danan, T. Ilovitsh, Y. Ramon, **D. Malka**, D.P. Liu, Z. Zalevsky (2016)
"Silicon-coated gold nanoparticles nanoscopy"
J. of Nanophotonics, 10(3), (036015)
WoS: Q4, IF: 1.179, JCR citations: 10
SCImago: Q3, h-index: 40 , Scopus citations: 13
[Google scholar citations: 16]

C. REFEREED ARTICLES, (ranked by either WoS or or SCImago), **contd.**

38. E. Cohen, **D. Malka**, A. Shemer, A. Shahmoon, Z. Zalevsky, M. London (2016)
"Neural networks within multi-core optic fibers"
Scientific Reports 6(1), (article no.29080, 14 pages)
[published online 7 July 2016]
WoS: Q2, IF: 4.996, JCR citations: 29
SCImago: Q1, h-index: 242 , Scopus citations: 37
[Google scholar citations: 43]

39. **D. Malka**, Y. Danan, Y. Ramon, Z. Zalevsky (2016)
"A photonic 1x4 power splitter based on multimode interference in Silicon-Gallium-Nitride slot waveguide structures"
Materials, 9(7), (article no.516)
WoS: Q1, IF: 3.748, JCR citations: 27
SCImago: Q2, h-index: 128, Scopus citations: 38
[Google scholar citations: 40]

40. **D. Malka**, Y. Sintov, Z. Zalevsky (2015)
"Design of a 1x4 silicon-alumina wavelength demultiplexer based on multimode interference in slot waveguide structures"
J. of Optics (United Kingdom) – IOPscience, 17(12), (125702 - 9 pages)
WoS: Q3, IF: 2.077, JCR citations: 17
SCImago: Q1, h-index: 95, Scopus citations: 29
[Google scholar citations: 30]

41. **D. Malka**, M. Cohen, J. Turkiewicz, Z. Zalevsky (2015)
"Optical micro-multi-racetrack resonator filter based on SOI waveguides"
Photonics and Nanostructures – Fundamentals and Applications, 16, (16-23)
WoS: Q2, IF: 3.064, JCR citations: 18
SCImago: Q2, h-index: 43, Scopus citations: 21

42. Y. Sintov, S. Goldring, S. Pearl, E. Lebiush, B. Sfez, **D. Malka**, Z. Zalevsky (2015)
"A robust all-fiber Q-switched 1-μm Yb^{3+} fiber laser"
Applied Physics B: Lasers and Optics, 120(3), (489-495)
WoS: Q3, IF: 2.171, JCR citations: 4
SCImago: Q2, h-index: 134, Scopus citations: 6
[Google scholar citations: 5]

43. A. Herzog, **D. Malka**, Z. Zalevsky, A.A. Ishaaya (2015)
"Effect of spatial coherence on damage occurrence in multimode optical fibers"
Optics Letters, 40(3), (415-418)
WoS: Q2, IF: 3.560, JCR citations: 6
SCImago: Q1, h-index: 277, Scopus citations: 7
[Google scholar citations: 8]

44. **D. Malka**, Y. Sintov, Z. Zalevsky (2015)
"Fiber-laser monolithic coherent beam combiner based on multi-core photonic crystal fiber"
Optical Engineering, 54(1), (011007-1—011007-5)
WoS: Q4, IF: 1.352, JCR citations: 26
SCImago: Q2, h-index: 109, Scopus citations: 27
[Google scholar citations: 29]

C. REFEREED ARTICLES, (ranked by either WoS or or SCImago), **contd.**

45. **D. Malka**, G. Berkovic, Y. Tischler, Z. Zalevsky (2015)
"Super-resolved Raman spectra of Toluene and Toluene-chlorobenzene mixture"
Spectroscopy Letters, 48(6), (431-435)
WoS: Q3, IF: 1.340, JCR citations: 12
SCImago: Q4, h-index: 39, Scopus citations: 12
[Google scholar citations: 12]

46. Y. Sintov, **D. Malka**, Z. Zalevsky (2014)
"Prospects for diode-pumped alkali-atom-based hollow-core photonic-crystal fiber lasers"
Optics Letters, 39(16), (4655-4658)
WoS: Q2, IF: 3.560, JCR citations: 23
SCImago: Q1, h-index: 277, Scopus citations: 23
[Google scholar citations: 28]

47. **D. Malka**, Z. Zalevsky (2013)
"Multicore photonic crystal fiber based 1x8 two-dimensional intensity splitters/couplers"
Electromagnetics, 33(5), (413-420)
WoS: Q4, IF: 1.024, JCR citations: 27
SCImago: Q3, h-index: 33, Scopus citations: 29
[Google scholar citations: 31]

48. **D. Malka**, G. Berkovic, Y. Hammer, Z. Zalevsky (2013)
"Super-resolved Raman spectroscopy"
Spectroscopy Letters, 46(4), (307-313)
WoS: Q3, IF: 1.340, JCR citations: 17
SCImago: Q4, h-index: 39, Scopus citations: 17
[Google scholar citations: 20]

49. P. Livshits, A. Inberg, Y. Shacham-Diamand, **D. Malka**, Y. Fleger, Z. Zalevsky (2012)
"Precipitation of gold nanoparticles on insulating surfaces for metallic
ultra-thin film electroless deposition assistance"
J. Applied Surface Science, 258(19), (7503-7506)
WoS: Q1, IF: 7.392, JCR citations: 5
SCImago: Q1, h-index: 204, Scopus citations: 6
[Google scholar citations: 7]

50. D. Elbaz, **D. Malka**, Z. Zalevsky (2012)
"Photonic crystal fiber based 1xN intensity and wavelength splitters/couplers"
Electromagnetics 32(4), (209-220)
WoS: Q4, IF: 1.042, JCR citations: 22
SCImago: Q3, h-index: 33, Scopus citations: 26
[Google scholar citations: 25]

51. **D. Malka**, H. Matzner (2009)
"Moment method solution using expansion functions defined in an infinite domain"
Electromagnetics, 29(7), (553-562)
WoS: Q4, IF: 1.042, JCR citation: 1
SCImago: Q3, h-index: 33, Scopus citations: 2
[Google scholar citations: 3]

D. CHAPTERS IN BOOKS

*1. **D. Malka** (2020)
"VLC splitter/demultiplexer multimode interference based on sloft-waveguide technology"
In: *Advances in Engineering Research,* Volume 41
Victoria M. Petrova (Ed.)
Seruies: Advances in Engineering Research
Nova Science Publishers, Ch.7, (54 pages)
[ISBN: 978-1-53618-882-0]

*2. **D. Malka**, G. Katz (2020)
"An eight-channel C-band demux based on multicore photonic crystal fiber"
In: *Special Issue: Synthesis and Modification of Nanostructured Thin Films*
Ion N. Mihailescu (Ed.)
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ISBN: 978-3-03928-454-2
This book is a printed edition that was published in Nanomaterials

3. H. Pinhas, Y. Danan, A. Meiri, O. Wagner, A. Shahmoon, T. Ilovitsh, Y. Ramon, **D. Malka**, M. Danino, M. Sinvani, Z. Zalevsky (2019)
"Usage of silicon for label-free super-resolved imaging"
In: *Label-Free Super-Resolution Microscopy*, V. Astratov (ed.)
Biological and Medical Physics, Biomedical Engineering book series (BIOMEDICAL)
Springer, Cham, September 2019 (213-237)
[ISBN: 978-3-030-21722-8]

4. **D. Malka**, E. Cohen, Z. Zalevsky (2018)
"Design of 4x1 power beam combined based on multicore photonic crystal fiber"
In: *Special Issue: Solid State Lasers Materials, Technologies and Applications*
Federico Pirzio (ed.)
Applied Sciences-Basel, April 2018 (72-80)
[ISBN: 978-3-03842-842-2]

5. **D. Malka**, Z. Zalevsky (2016)
"Multicore photonic crystal fiber based intensity splitters/couplers"
in: *Photonic Crystals: Characteristics, Performance and Applications*
Series: Physics Research and Technology
Barbara Goodwin (ed.)
Nova Science Publishers, Chapter 3, (54 pages)
[ISBN 978-1-63485-925-7]

6. **D. Malka**, G. Berkovic, Y. Hammer, Z. Zalevsky (2015)
"Online and real-time water quality monitoring system based upon
Raman super-resolved spectrometer"
in: *Nanomaterials for Water Management: Signal Amplification for Biosensing from Nanostructures*
Robert S. Marks, Ibrahim Abdulhalim (eds.)
Pan Stanford Series on the High-Tech of Biotechnology, Vol.4, (238 pages)
[ISBN: 978-9-81446-347-8]

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E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS

*1. **D. Malka** (2024)
System for Identifying Discrepancies between PET-CT Scans Pre- and Post-Treatment
9th Global Webinar on Public Health Organized by the Global Scientific Guild
24-25 April 2024 [invited keynote talk] (webinar)

*2. **D. Malka** (2024)
AI-driven optimization: Implementing four-channel architecture with MMI on SiN strip waveguides for enhanced data centre efficiency
2nd Global Summit on Artificial Intelligence (GSAI)
22-23 April 2024 [invited keynote talk] (webinar)

*3. **D. Malka** (2024)
Enhancing silicon nitride MMI couplers for realizing a four-channel O- band multiplexer
5th Global Webinar on Laser, Optics and Photonics organized by the Global Scientific Guild
17-18 April 2024 **[invited keynote talk]** (webinar)

*4. **D. Malka** (2024)
Optimization of phase shifter using silicon Rib waveguide technology
3rd International Conference on Photonics, Optics and Laser Technology
London, England, 29-30 March 2024 **[invited keynote talk]** (virtual event)

*5. **D. Malka** (2024)
Utilizing silicon nitride strip waveguides with multimode Interference couplers for a WDM system
International Meet on Sensors and Sensing Technology (SENSORSMEET2024)
Lisbon, Portugal, 14-16 March 2024 **[invited keynote talk]**

*6. **D. Malka** (2023)
Efficient Polarization Intensity Combining with Silicon Slot-Waveguide MMI Configuration
4th Global Webinar on Laser, Optics and Photonics Organized by the Global Scientific Guild
29-30 November 2023 **[invited keynote talk]**

*7. **D. Malka** (2023)
MMI polarization intensity combiner using silicon slot-waveguide configuration
2nd Int'l. Conf. on Advanced Nanomaterials and Nanotechnology
Vienna, Austria, 20-21 November 2023 **[invited keynote talk]**

*8. **D. Malka** (2023)
Phase shifter based on thermo-optic silicon rib technology
5th Edition of Int'l. Conf. on Materials Science and Engineering (MAT 2023)
Valencia, Spain, 25-27 September 2023 [keynote talk] (virtual event)

*9. **D. Malka** (2023)
TE/TM polarization MMI combiner based on silicon slot-waveguide technology
16th Edition of Global Conf. on Catalysis, Chemical Engineering & Technology (CAT 2023)
Valencia, Spain, 14-16 September 2023 [invited talk]

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E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS, contd.

*10. **D. Malka** (2023)
Optical logic half adder based on multi ring resonators silicon photonic crystal structures
IX Int'l. Scientific Conf. Material Science Nonequilibrium Phase Transformations
Varna, Bulgaria, 4-7 September 2023 [invited talk]

*11. **D. Malka** (2023)
Thermo-optic-phase-shifter using silicon rib technology
7th Central and Eastern European Conf. on Thermal Analysis and Calorimetry (CEEC-TAC7)
Brno, Czech Republic, 28-31 August 2023 **[oral]**

*12. **D. Malka** (2023)
A silicon nitride MMI O-band power combiner based on slot waveguide structures
Proc. SPIE Optics & Optoelectronics
Integrated Optics: Design, Devices, Systems and Applications VII, 125750B (31 May 2023)
Prague, Czech Republic, 24-27 April 2023 **[oral]**
https://doi.org/10.1117/12.2664888

*13. **D. Malka** (2023)
Four channel C-band using cascaded MMI on silicon nitride strip waveguide technology
11th Int'l. Conf. on Photonics, Optics and Laser Technology (PHOTOPTICS 2023)
Lisbon , Portugal, 16-18 February 2023 **[oral]**

*14. **D. Malka** (2022)
Controlling high speed mach zehnder modulator quadrature bias point using Si PIN diode phase-shifter
22nd Int'l. School on Condensed Matter Physics: State of the Art in Functional Materials & Technologies
Varna, Bulgaria, 29 August-2nd September 2022 **[invited talk]**

*15. **D. Malka** (2022)
Optimization of Si PIN diode phase-shifter combined with RC equalizer under forward biasing
5th Int'l. Conf. on Application of Optics and Photonics (AOP 2022)
Abstract Book (page 202)
Guimarães, Portugal, 18-22 July 2022 **[oral]**
[ISBN: 978-989-8798-08-4]

*16. **D. Malka** (2022)
Angled MMI power combiner based on silicon slot waveguide technology
Int'l. Conf. on Laser, Plasma and Radiation - Science and Technology
Romania, Bucharest, 7-10 June 2022 [oral]

*17. **D. Malka** (2022)
Demultiplexer technology based on cascaded MMI and angled MMI waveguides
OPTICS-2022 – Lasers, Optics and Photonics World Forum
Portugal, Porto, 21-23 April 2022 **[invited keynote lecture]**

*18. **D. Malka** (2022)
1x3 demultiplexer channel using galliun nitride angled multimode interference waveguides
Global Conf. on Semiconductors, Optoelectronics and Nanostructures
14-16 April 2022 **[invited keynote lecture]** (virtual event)

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E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS, contd.

*19. **D. Malka** (2021)
RGB port demultiplexer using polycarbonate core polymer otical fiber technology
European Lasers, Photonics and Optics Technologies Summit
22-23 September 2021 **[invited speaker]** (virtual event)

*20. **D. Malka** (2021)
A four red and green channel using multi slot-waveguide technology
Webinar on Laser, Optics & Photonics
26-27 July 2021 **[invited keynote lecture]** (virtual event)

*21. B. Gelkop, L. Aichnboim, **D. Malka** (2021)
RGB multiplexer using polycarbonate MC-POF technology
Proc. SPIE Optics & Optoelectronics
Micro-structured and Speciality Optical Fibres VII, 11773 (Paper 11773-29)
(K. Kalli, A. Mendex, P. Peterka Eds.), Czech Republic, 19-23 April 2021 **[oral]** (online)

*22. **D. Malka** (2021)
RGB channel multiplexer based on seven polycarbonate core polymer optical fiber technology
Online Summit on Optics and Photonics (COP-2021)
6 April 2021 **[oral]** (live stream)

*23. **D. Malka** (2020)
A 3x1 laser MMI power combiner based on slot-waveguide technology (JTh2A.20)
OSA Laser Congress, 13-16 October 2020 **[poster]** (virtual event)

24. M. Gindi, A. Melamed, **D. Malka** (2019)
1x4 VLC wavelength demultiplexer based on multislot waveguide structures
Proc. SPIE 11062, 2019 (28-37)
B.C. Kress, P. Schelkens (eds.)
SPIE Digital Optical Technologies 2019
Munich, Germany, 24-26 June 2019 **[oral]**
[doi: 10.1117/12.2527618]
Scopus citation: 1
[Google scholar citation: 1]

25. **D. Malka**, M. Ran, R. Dadabayev (2019)
RGB demultiplexer based on multicore polymer optical fiber
European Conf. on Networks and Communications (EUCNC 2019) - The 7th Global 5G Event
Valencia, Spain, 18-21 June 2019, (224-229) **[oral]**
[Google scholar citation: 1]

26. G. Albert, G. Dekel, S. Kurland, M. Ran, **D. Malka**, G. Katz (2019)
Which LiFi's apps may fit mostly to 5G and beyond-5G technology?
2019 Global LIFI Congress (GLC)
Paris, France, 12-13 June 2019 **[oral]**
Scopus citations: 2
[Google scholar citations: 7]

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E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS, contd.

27. R. Dadanauev, **D. Malka** (2019)
RGB wavelength demultiplexer based on PCF/POF structure
Proc. SPIE's 2019 Int'l. Symp. on Optics & Optoelectronics
Micro-structured and Specialty Optical Fibres VI, 11029 (52-64) (11029OL)
Prague, Czech Republic, 1-4 April 2019 **[oral]**
[Google scholar citation: 1]

28. **D. Malka** (2018)
1x4 Visible Light MMI Wavelength Demultiplexer in GaN slot-waveguide
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Eilat, Israel, 12-14 December 2018 **[oral]**

29. **D. Malka**, R. Dadabayev, M. Ran (2018)
RGB wavelength demultiplexer based on photonic crystal fiber
American J. of Computer Science and Information Technology, 6, 2018 **[oral]**
ISSN: 2349-3917 (page 45)
Laser Optics & Photonics and Atomic & Plasma Science
Prague, Czech Republic, 16-17 July 2018 **[keynote lecture]**

30. **D. Malka** (2018)
Novel design of 1x4 photonic intensity splitter based on multi silicon slot-waveguide structures
Proc. 2nd Global Summit & Expo on Laser Optics & Photonics
Rome, Italy, 14-16 June 2018 **[keynote lecture]**

31. J. Cosmas, B. Meunier, K. Ali, N. Jawad, M. Salih, H-Y Meng, M. Ganley, J. Gbadamosi, A. Savov, Z. Hadad, B. Globen, H. Gokmen, S. Malkos, M. Emre Cakan, H. Koumaras, M-A Kourtis, C. Sakkas, E. Salomon, Y. Avinoam, D. Nezru, M. Lacaud, Y. Zhang, L-K Huang, R. Zetik, K. Cabai, W. Mazurczyk, X. Zhang, M. Ran, **D. Malka**, A. Kapovits (2018)
A scalable and license free 5G internet of radio light architecture for services in homes and businesses
Proc. 13th Int'l. Symp. on Broadband Multimedia Systems and Broadcasting (BSMB)
Valencia, Spain, 6-8 June 2018 (1-6)
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Scopus citations: 10
[Google scholar citations: 29]

32. **D. Malka**, M. Ran (2018)
1x8 green light intensity splitter based on gallium-nitride slot waveguide in MM1 structure
SPIE Proc. 10690 – Optical Design and Engineering VII (221-227)
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33. H. Pinhas, **D. Malka**, Y. Danan, M. Sinvani, Z. Zalevsky (2018)
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San Francisco, USA, 27 January-1 February 2018 **[oral]**
[ISBN: 978510615373]

E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS, contd.

34. B.B. Ben Zaken, T. Zanzury, **D. Malka** (2017)
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SPIE Digital Optical Technologies 2017, Vol.10335 (150-159)
Munich, Germany, 25-29 June 2017 **[oral]**
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35. **D. Malka** (2017)
An 8-channel wavelength demultiplexer based on photonic crystal fiber
SPIE's 2017 Int'l. Symp. on Optics & Optoelectronics
Prague, Czech Republic, 24-27 April 2017 (57-63) **[oral]**
Scopus citations: 2
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36. E. Cohen, **D. Malka**, A. Shemer, A Shahmoon, M. London, Z. Zalevsky (2017)
Micro mirrors based coupling of light to multi-core fiber realizing in-fiber photonic neural network processor
2017 SPIE Photonics West Conf.
San Francisco, CA, USA, 28 January-2 February 2017 **[oral]**

37. **D. Malka**, Y. Danan, Z. Zalevsky (2016)
Slot Silicon-Gallium nitride waveguide realizing 1x4 optical power splitter
2016 ICSEE Int'l. Conf. on the Science of Electrical Engineering
Eilat, Israel, 16-18 November 2016 [**oral]**
Scopus citations: 6
[Google scholar citations: 5]

38. **D. Malka**, A. Peled (2016)
Power splitting of 1x16 in multicore photonic crystal fibers
Proc. 10th Int'l. Conf. on Photoexcited Processes and Applications (ICPEPA-10)
Brasov, Romania, 29 August-2 September 2016 **[oral]**

39. Y. Danan, T. Ilovitsh, **D. Malka**, Z. Zalevsky, D. Liu (2016)
Super-resolved imager with nanometric resolution based on silicon coated gold nanoparticles
15th Workshop on Information Optics (WIO2016)
Barcelona, Spain, 11-15 July 2016 **[oral]**

40. **D. Malka**, M. Cohen, J. Turkiewicz, Z. Zalevsky (2014)
Optical micro-multi-racetrack resonator filter based on SOI waveguides
2014 IEEE 28th Convention of Electrical and Electronics Engineers in Israel
Eilat, Israel, 3-5 December 2014 **[oral]**
Scopus citation: 4
[Google scholar citations: 24]

41. **D. Malka**, Y. Sintov, Z. Zalevsky (2014)
Design of a 1x4 silicon wavelength demultiplexer based on multimode interference coupler in a slot waveguide structure
2014 IEEE 28th Convention of Electrical and Electronics Engineers in Israel
Eilat, Israel, 3-5 December 2014 **[oral]**
Scopus citations: 6
[Google scholar citations: 7]

E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS, contd.

42. D. Malka, Z. Ibragimov, H. Matzner (2011)
Applying method of moments based on expansion functions defined in the infinite domain
The 3rd Int'l. IEEE Conf. on Microwaves, Communications, Antennas and Electronics Systems (COMCAS 2011), Tel-Aviv, Israel, 7-9 November 2011 (1-3) **[oral]**

43. P. Livshits, A. Inberg, **D. Malka**, Y. Fleger, Z. Zalevsky, Y. Shacham-Diamand (2011)
Thin silver films electroless deposition gold nanoparticles catalyst for micro and nanoelectronics
Proc. Advanced Metallization Conf. 2011
San Diego, CA, USA, 4-6 October 2011 (84-86) **[oral]**

44. P. Livshits, A. Inberg, Y. Shacham-Diamand, **D. Malka**, Y. Fleger, Z. Zalevsky (2011)
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San Diego, CA, USA, 4-6 October 2011 (42-44) **[oral]**

45. **D. Malka**, H. Matzner (2010)
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IEEE Proc. 2010 Asia-Pacific Microwave Conf. (APMC 2010)
Yokohama, Japan, 7-10 December 2010 (975-978) **[oral]**
Scopus citation: 1
[Google scholar citations: 2]

Accepted for presentation:

1. D. Malka (2024)
Boosting data centre efficiency: Four-channel waveguides for wavelength division multiplexing systems
Global Summit on 2D Materials and Graphene Technology (GS2DMAT2024)
Prague, Czech Republic, to be held 16-18 September 2024 **[invited keynote talk]**

2. D. Malka (2024)
Optimizing dual titanium nitride heaters with SOI technology
3rd Int'l. Forum on Lasers, Optics and Photonics (LOPFORUM2024)
Madrid, Spain, to be held 12-14 August 2024
[invited keynote talk]

3. D. Malka (2024)
Enhancing transmitter efficiency using dual titanium nitride heaters with silicon technology
2nd International Summit on Nanotechnology and Nanomaterials (ISNN2024)
Porto, Portugal, to be held 10-12 June 2024 **[invited keynote talk]**

F. PAPERS PRESENTED AT SCIENTIFIC MEETINGS (UNPUBLISHED)

*1. N. Avital ,D. Malka (2024)
Emotion and understanding level analysis of students images, using deep learning algorithm for real-time feedback
24th Int'l. Conf. on Artificial Intelligence, Judaism, and Education **[oral]**
Jerusalem, Israel, 2 June 2024

*2. **D. Malka** (2023)
Designing all-optical logic half adder with photonic crystal multi-ring resonators
World Congress on Material Science and Nanotechnology (MATSCIENCE 2023)
10-11 July 2023 **[keynote speaker]** (virtual event)

*3. N. Avital, **D. Malka** (2023)
Real time detection student's reactions to lectures using image processing algorithm
Eighth Int'l. Conf. on Teacher Education: Passion and Professionalism in Teacher Education
Tel-Aviv, Israel, 26-27 June 2023 (page 388) **[oral]**

*4. **D. Malka** (2023)
Combining multiple coherent sources using photonic chip MMI silicon nitride waveguides
5th World Nanotechnology Summit (World-Nano 2023)
Valencia, Spain, 21-22 June 2023 **[keynote speaker]**

*5. Y. Pugachov, M. Gulitski, O. Mizrahi, **D. Malka** (2023)
Design of all-optical logic half-added based on photonic crystal multi-ring resonator
6th Int'l. Symp. Nanotechnology From Academia To Industry 2023 (NTAI-2023)
Holon, Israel, 14-15 June 2023 (P2 – page 28) **[poster]**

*6. **D. Malka**
SiN photonic chip devices based on MMI technology (2023)
6th Global Webinar on Applied Science, Engineering, and Technology &
Global Webinar on Optics, Photonics, and Laser
25 March 2023 **[keynote speaker]** (virtual event)

*7. **D. Malka** (2023)
Combining SiN MMI waveguides based on slot waveguside technology
4th Edition of Int'l. Conf. on Materials Science and Engineering
13-15 March 2023 **[keynote speaker]** (virtual event)

*8. **D. Malka** (2023)
Four and two C-band channel using multi silicon nitride MMI configuration
Int'l. Forum on Lasers, Optics and Photonics (LOPFORUM 2023)
13-15 March 2023 **[invited virtual keynote speaker]**

*9. N. Katash, S. Khateeb, **D. Malka** (2022)
A 4x1 O band MMI power combiner using silicon nitride slot waveguide technology
OASIS 8 Int'l. Conf. & Exhibition on Optics & Electro-Optics
Tel-Aviv, Israel, 12-13 December 2022 **[poster]**

* Publications since latest promotion

F. PAPERS PRESENTED AT SCIENTIFIC MEETINGS (UNPUBLISHED), contd.

*10. **D. Malka** (2022)
An optimal design of silicon PIN phase-shifter for high-speed communication applications
3rd Edition of Int'l. Conf. on Materials Science and Engineering
21-22 September 2022 **[keynote lecture]** (virtual event)

*11. **D. Malka** (2020)
A four red light TE demultiplexer based on six slot-waveguide structures
Webinar Meeting on Quantum Mechanics (iquantum-2020)
21-22 October 2020 **[invited keynote lecture]** (live stream)

*12. **D. Malka** (2020)
Angled multimode interference power combiner based on slot-waveguide
7th European Conf. on Lasers, Optics and Photonics
Amsterdam, The Netherlands, 21-22 February 2020 **[invited keynote lecture]**

*13. **D. Malka** (2020)
A four channel red TE demultiplexer based on GaN slot-waveguide technology
Online Summit on Applied Science and Engineering - ICASE-2020 Virtual Event
in collaboration with Ariel University, Israel, Chapter 2, 27 August 2020 **[invited lecture]**

14. **D. Malka** (2018)
Super resolved detection of 4 Raman modes of Silica Fiber Spectra
17th European Conf. on Nonlinear Optical Spectroscopy (ECONOS 2018)
Milan, Italy, 8-11 April 2018 **[oral]**

15. **D. Malka** (2017)
Design of 1xN MMI power and wavelength splitters/couplers based on slot silicon waveguide structures
7th Int'l. Conf. on Laser Optics
Milan, Italy, 31 July-2 August 2017 **[keynote lecture]**

16. **D. Malka** (2017)
Super-resolved Raman spectra of pure silicon
European Conference on Nonlinear Optical Spectroscopy (ECONOS2017)
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17. **D. Malka**, Z. Zalevsky (2016)
Design of a 1x2 Silicon-Gallium Nitride wavelength demultiplexer based on multimode interference in slot waveguide structures
The 5th Int'l. Nanotechnology Conf. and Exhib. (NANOISRAEL 2016)
Tel-Aviv, Israel, 22-23 February 2016 **[poster]**

18. **D. Malka** (2015)
PCF based 1x2 wavelengths dumeltiplexer with inherent in-fiber amplification
OASIS 5 - Conf. and Exhib. on Optics and Electro-Optics
Tel-Aviv, Israel, 3-4 March 2015 (page 92) **[poster]**

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F. PAPERS PRESENTED AT SCIENTIFIC MEETINGS (UNPUBLISHED), contd.

19. Y. Sintov, S. Goldring, S. Pearl, E. Lebiush, M. Lebendik, B. Sfez, **D. Malka**, Z. Zalevsky (2015)
A robust all-fiber Q-switched 1 micron Yb^{3+} fiber laser
OASIS 5 - Conf. and Exhib. on Optics and Electro-Optics
Tel-Aviv, Israel, 3-4 March 2015 (page 32) **[oral]**

20. **D. Malka**, G. Berkovic, Y. Tischler, Z. Zalevsky (2014)
Demonstration of super-resolved Raman spectra of Toluene and Toluene-chlorobenzene mixture
24th Int'l. Conf. on Raman Spectroscopy (ICORS 2014) **[oral]**
Jena, Germany, 10-15 August 2014

H. OTHER PUBLICATIONS
H1. REFEREED ABSTRACTS

*1. **D. Malka** (2022)
Optimization of Si PIN diode phase-shifter combined with RC equalizer under forward biasing
5th Int'l. Conf. on Application of Optics and Photonics (AOP 2022)
Abstract Book (page 202)
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SBN: 978-989-8798-08-4

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