

HIT - HOLON INSTITUTE OF TECHNOLOGY

Date: 7th May 2026

Name BORIS APTER Ph.D. 320929862
(first) (last) (acad. degree) **No. id. Card**

Faculty Engineering **Department** Electrical & Electronics Eng.

Home Address 4/16 Tamuz St., Ashdod 77751 **Phone No.** 08-8663463 03-5026848 0544-575472
(home) (work) (mobile)

Date/place of birth 11/4/1960 USSR **Date of arrival in Israel** 20.4.1999
(date) (country)

ZAHAL, (Israeli) Military Service - -
dates (enlisted) (discharged)

Marital Status Married **No. of children** one

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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
1977-1982	Khabarovsk Transport Engineering Institute, Khabarovsk, USSR	Electrical and Electronic Engineering	M.Sc.	26/6/1982
1985-1988	All-Union Research Institute for Opto-Physical Measurements, Moscow, USSR	Applied Optics	Ph.D.	28/2/1990

Title of Master's Thesis: Development of onboard range-finder radar

Name of Supervisors: Dr. B.I. Davidov

Title of Doctoral Dissertation: Methodical errors of optical refraction tomography

Names of Supervisors: Prof. B.Ye Kinber

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
NONE				

C. ACADEMIC AND PROFESSIONAL EXPERIENCE

Period (dates)	Name of Institution (city, country)	Department	Rank/Function
1982-84	Khabarovsk Transport Engineering Institute, Khabarovsk, USSR	Optoelectronics Laboratory	Electronic Engineer
1984-85	Khabarovsk Transport Engineering Institute, Khabarovsk, USSR	Physics	Researcher; Instructor of educational laboratory of general physics
1985-88	All-Union Research Institute for Opto-Physical Measurements, Moscow, USSR	Laboratory of Optical Measurements	Doctoral student; Researcher
1988-96	Far-Eastern State Transport University, Khabarovsk, Russia	Physics	Senior Staff Scientist
1986-99	Far-Eastern State Transport University, Khabarovsk, Russia	Physics; Optics and Quantum Electronics	Senior Lecturer
1.9.2000-present	HIT - Holon Institute of Technology, Holon, Israel	Faculty of Engineering/ Dept. Electrical and Electronics Engineering	
	Rank:		
	1.9.2000-31.10.2003	Research Scientist (Ministry of Immigration)	
	31.10.2003-1.9.2005	Adjunct Lecturer	
	1.9.2005-1.10.2006	Research Scientist (Ministry of Immigration: Gileadi Program)	
	1.10.2006-7.1.2016	Senior Lecturer	
	7.1.2016-1.1.2021	Senior Lecturer <i>with tenure</i>	
	1.1.2021-present	Associate Professor	

D. PROFESSIONAL AND PUBLIC ACTIVITIES

Period (dates)	Name of Institution/Conference/ Journal/Exhibitions/Projects (city, country)	Occasion
1990-99	Far-Eastern State Transport University, Russia, Khabarovsk	Scientific Secretary of the Far Eastern Branch of Physical Society
1996-98	Far-Eastern State Transport University, Russia, Khabarovsk	Head of student's scientific organization of faculty of natural sciences
1996-99	Far-Eastern State Transport University, Russia, Khabarovsk	Member of dissertational advice on optics, reviewing of dissertations abstracts
1998-99	Far-Eastern State Transport University, Russia, Khabarovsk	Assistant to the dean of faculty on scientific activity
2003	Holon Institute of Technology, Holon, Israel	Responsible for group of scientists-new repatriates, trained on advanced course of Hebrew; Participation in the organization of a seminar for scientists-new repatriates at the Zipory Center, Jerusalem

E. ACADEMIC AND PROFESSIONAL AWARDS

Year	Name of Institution (city, country)	Occasion
1988	All-Union Research Institute for Opto-Physical Measurements, Moscow, USSR	Competition of scientific works of post-graduate students
1/9/2005-31/8/2006	Ministry of Absorption, Inter University Commission, Israel	'Gileadi' program
1/10/2006-7/1/2016	Ministry of Absorption, Inter University Commission, Israel	"KAMEA" program
2013/2014	HIT – Holon Institute of Technology, Holon, Israel	Excellence in research/creativity, teaching, and contribution to the community
2015/2016	HIT – Holon Institute of Technology, Holon, Israel	Excellence in teaching
2016-2017	HIT – Holon Institute of Technology, Holon, Israel	Excellence in academic field
2017-2018	HIT – Holon Institute of Technology, Holon, Israel	Excellence in teaching, research, creativity, and contribution to the institute and the community
2018-2019	HIT – Holon Institute of Technology, Holon, Israel	Excellence in teaching, research, creativity, and contribution to the institute and the community
2019-2020	HIT – Holon Institute of Technology, Holon, Israel	Excellence in research, teaching, and contribution to the institute and the community
2020-2021	HIT – Holon Institute of Technology, Holon, Israel	Excellence in research/creativity, teaching, and contribution to the institute and the community
2021-2022	HIT – Holon Institute of Technology, Holon, Israel	Excellence in research, teaching, and contribution to the institute and the community

E1. RESEARCH GRANTS

Year	Name of Institution (city, country)	Occasion/Amount
2019-2021	Ministry of Science and Technology of Israel	Research grant between Tel-Aviv University and HIT – Holon Institute of Technology: Optic sensor probes based on peptide lasers for the next generation of medical devices Budget: NIS 372,600.00

F. MEMBERSHIP IN PROFESSIONAL SOCIETIES

Year	Society (country)
1990-99	Far-Eastern Branch of Physical Society, Russia

G. STUDENTS SUPERVISED BY CANDIDATE

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

G1. DOCTORAL STUDENTS

Year	Name of Student	Title of Thesis	Name of Academic Institution
NONE			

G2. M.A./M.Sc. STUDENTS

Year	Name of Student	Title of Thesis	Name of Academic Institution
2001-04	Eldad Bahat-Treidel	Study of the diffraction efficiency of liquid crystal-based blazed grating	Ben-Gurion University of the Negev, Beer-Sheva (with Prof. Uzi Efron)
2004-2007	Ofer Levy	Optical design studies of smart goggle for visually impaired	Ben-Gurion University of the Negev, Beer-Sheva (with Prof. Uzi Efron)
2006-2008	Pavel Kogan	Studies of plasmonic structures for application of spatial light modulation and optical beam steering	Ben-Gurion University of the Negev, Beer-Sheva (with Prof. Uzi Efron)
2007-2010	Oren Guilatt	Studies of surface plasmon resonance phenomenon for applications in spatial light modulation and enhanced sensing of optical field	Ben-Gurion University of the Negev, Beer-Sheva (with Prof. Uzi Efron)
2012-2014	Yuval Taff	Studies of organic solar cell efficiency enhancement by using local surface plasmon resonance	Ben-Gurion University of the Negev, Beer-Sheva (with Prof. Uzi Efron)
2021-2023	Paul Rosenbaum	Fluorescence properties of thin polymer films with embedded peptide nanodots	HIT – Holon Institute of Technology (with Prof. Gil Rosenman)

PUBLICATIONS

Prof. Boris Apter has an h-index of 15 (Google scholar)

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

- *1. **B. Apter**, C.T. Dabush, G. Varon (2026)
A combined lighting – LiDAR system based on a laser-excited phosphor source:
Proof of concept
J. of Lightwave Technology, 18 March 2026 (early access)
<https://doi.org/10.1109/JLT.2026.3674969>
WoS: Q1, IF: 4.8 (2024)
SCImago: Q1, h-index: 235 (2025)
- *2. P. Rosenbaum, H. Barhom, A. Inberg, I. Lapsker, G. Rosenman, **B. Apter** (2024)
Hidden imaging in thin polymer films with embedded fluorescent peptide nanodots
Optics Express, 32(3), (4485-4497)
WoS: Q2, IF: 3.2 (2023), JCR citations: 4
SCImago: Q1, h-index: 312 (2023), Scopus citations: 5
[Google scholar citations: 7]
- *3. G. Rosenman, **B. Apter** (2022)
Bioinspired materials: Physical properties governed by biological refolding
Applied Physics Reviews, 9(2), (021303)
WoS: Q1, IF: 19.527, JCR citations: 8
SCImago: Q1, h-index: 78, Scopus citations: 8
[Google scholar citations: 9]
- *4. **B. Apter**, I. Lapsker, A. Inberg, G. Rosenman (2022)
Photon recycling effect and lossless fluorescence propagation in β -sheet peptide fibers
Advanced Optical Materials, 10(4), (2102342-1–2102342-12)
WoS: Q1, IF: 10.050, JCR citations: 3
SCImago: Q1, h-index: 104, Scopus citations: 3
[Google scholar citation: 1]
- *5. A. Machnev, D. Ofer, I. Shishkin, V. Kozlov, C. Diaferia, A. Accardo, G. Morelli,
B. Apter, A. Inberg, G. Rosenman, P. Ginzburg (2021)
Amplified spontaneous emission and gain in highly concentrated Rhodamine-doped peptide
derivative
Scientific Reports (Nature Publisher Group), 11(1), (17609)
<https://doi.org/10.1038/s41598-021-96982-5>
WoS: Q2, IF: 4.996, JCR citations: 12
SCImago: Q1, h-index: 242, Scopus citations: 9
[Google scholar citations: 13]
- *6. **B. Apter**, N. Lapshina, I. Lapsker, A. Handelman, A. Accardo, C. Diaferia,
G. Morelli, G. Rosenman (2021)
Fold-sensitive visible fluorescence in β -sheet peptide structures
Advanced Optical Materials, Special Issue: Optical Properties and Applications of Crystalline
Materials, December 2021
first published 18 March 2021, 9(23), (2002247-1–2002247-10)
<https://doi.org/10.1002/adom.202002247>
WoS: Q1, IF: 10.050, JCR citations: 12
SCImago: Q1, h-index: 104, Scopus citations: 12
[Google scholar citations: 13]

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

7. **B. Apter**, N. Lapshina, H. Barhom, B. Fainberg, A. Handelman, A. Accardo, C. Diaferia, P. Ginzburg, G. Morelli, G. Rosenman (2020)
Fluorescence phenomena in Amyloid and Amyloidogenic bionanostructures
Crystals, 10(8), (668-1–668-43)
WoS: Q2, IF: 2.670, JCR citations: 25
SCImago: Q2, h-index: 45, Scopus citations: 25
[Google scholar citations: 26]
8. **B. Apter**, B. Fainberg, A. Handelman, I. Lapsker, A. Accardo, C. Diaferia, G. Morelli, G. Rosenman (2020)
Long-range fluorescence propagation in Amyloidogenic β -sheet films and fibers
Advanced Optical Materials, 8(9), (2000056-1–2000056-14)
WoS: Q1, IF: 10.050, JCR citations: 20
SCImago: Q1, h-index: 104, Scopus citations: 20
[Google scholar citations: 15]
9. **B. Apter**, N. Lapshina, A. Handelman, G. Rosenman (2019)
Light waveguiding in bioinspired peptide nanostructures
J. of Peptide Science – Special Issue Review, 25(5), (e3164)
WoS: Q3, IF: 2.408, JCR citations: 9
SCImago: Q3, h-index: 68, Scopus citations: 9
[Google scholar citations: 9]
10. N. Lapshina, I.I. Shishkin, R. Nandi, R.E. Noskov, H. Barhom, S. Joseph, **B. Apter**, T. Ellenbogen, Amir Natan, Pavel Ginzburg, N. Amdursky, G. Rosenman (2018)
Bioinspired Amyloid nanodots with visible fluorescence
Advanced Optical Materials, 7(5), (1801400-1–1801400-7)
WoS: Q1, IF: 10.050, JCR citations: 29
SCImago: Q1, h-index: 104, Scopus citations: 33
[Google scholar citations: 34]
11. **B. Apter**, N. Lapshina, A. Handelman, B.D. Fainberg, G. Rosenman (2018)
Peptide nanophotonics: From optical waveguiding to precise medicine and multifunctional biochips
SMALL, 14(34), (1801147-2–1801147-19)
[online: <https://doi.org/10.1002/sml.201801147>, first published 19 July 2018]
WoS: Q1, IF: 15.153, JCR citations: 38
SCImago: Q1, h-index: 259, Scopus citations: 42
[Google scholar citations: 47]
12. A. Handelman, N. Lapshina, **B. Apter**, G. Rosenman (2017)
Peptide integrated optics
Advanced Materials, 30(5), (1705776-1–1705776-7)
WoS: Q1, IF: 32.086, JCR citations: 39
SCImago: Q1, h-index: 563, Scopus citations: 38
[Google scholar citations: 46]
13. A. Axelevitch, **B. Apter** (2017)
Preparation and study of doped ZnS thin films
Microelectronic Engineering, 170, (39-43)
WoS: Q2, IF: 2.662, JCR citations: 17
SCImago: Q2, h-index: 104, Scopus citations: 19
[Google scholar citations: 25]

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

14. A. Handelman, **B. Apter**, T. Shostak, G. Rosenman (2017)
Peptide optical waveguides
J. of Peptide Science – Special Issue Review, 23(2), (95-103)
WoS: Q3, IF: 2.408, JCR citations: 13
SCImago: Q3, h-index: 68, Scopus citations: 14
[Google scholar citations: 14]
15. M.R. Singh, M.J. Brzozowski, **B. Apter** (2016)
Effect of phonon-plasmon and surface plasmon polaritons on photoluminescence in quantum emitter and graphene deposited on polar crystals
J. of Applied Physics, 120(12), (124308)
WoS: Q2, IF: 2.877, JCR citations: 19
SCImago: Q2, h-index: 331, Scopus citations: 19
[Google scholar citations: 20]
16. A. Handelman, **B. Apter**, N. Taurko, G. Rosenman (2016)
Linear and nonlinear optical waveguiding in bio-inspired peptide nanotubes
Acta Biomaterialia, 30, (72-77)
WoS: Q1, IF: 10.633, JCR citations: 32
SCImago: Q1, h-index: 207, Scopus citations: 30
[Google scholar citations: 33]
17. A. Axelevitch, **B. Apter** (2015)
In-situ investigation of optical transmittance in metal thin films
Thin Solid Films, 591(Part B), (261-266)
[selected papers from 16th Int'l. Conf. on Thin Films, Dubrovnik, Croatia, 13-16 October 2014]
WoS: Q3, IF: 2.358, JCR citations: 21
SCImago: Q2, h-index: 199, Scopus citations: 25
[Google scholar citations: 31]
18. Y. Taff, **B. Apter**, E.A. Katz, U. Efron (2015)
Modeling plasmonic efficiency enhancement in organic photovoltaics
Applied Optics, 54(26), (7957-7961)
WoS: Q3, IF: 1.905, JCR citations: 2
SCImago: Q2, h-index: 203, Scopus citations: 2
[Google scholar citations: 2]
19. A. Axelevitch, **B. Apter** (2014)
Optical emission spectroscopy of the sputtering process in the triode system
Radiation Effects & Defects in Solids: Incorporating Plasma Science and Plasma Technology, 169(9), (759-766)
[<http://dx.doi.org/10.1080/10420150.2014.934822>]
WoS: Q4, IF: 0.502
SCImago: Q3, h-index: 32
[Google scholar citations: 2]
20. A. Axelevitch, **B. Apter**, G. Golan (2013)
Simulation and experimental investigation of optical transparency in gold island films
Optics Express, 21(4), (4126-4138)
WoS: Q2, IF: 3.833, JCR citations: 71
SCImago: Q1, h-index: 281, Scopus citations: 76
[Google scholar citations: 118]

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

21. N. Mirchin, **B. Apter**, I. Lapsker, V. Fogel, U. Gorodetsky, S.A. Popescu, A. Peled, G. Popescu-Pelin, G. Dorcioman, L. Duta, A. Popescu, I.N. Mihailescu (2012)
Measuring nanolayer profiles of various materials by evanescent light technique
J. of Nanoscience and Nanotechnology, 12(3), (2668-2671)
WoS: Q4, IF: 1.134 (2019), JCR citations: 4
SCImago: Q3, h-index: 108, Scopus citations: 3
[Google scholar citations: 6]
22. G. Li, M.S. Shishodia, B.D. Fainberg, **B. Apter**, M. Oren, A. Nitzan, M.A. Ratner (2012)
Compensation of Coulomb blocking and energy transfer in the
current voltage characteristic of molecular conduction junctions
Nano Letters, 12(5), (2228-2232)
WoS: Q1, IF: 12.262, JCR citations: 35
SCImago: Q1, h-index: 511, Scopus citations: 35
[Google scholar citations: 44]
23. **B. Apter**, O. Guilatt, U. Efron (2011)
Ring-type plasmon resonance in metallic nanoshells
Applied Optics, 50(28), (5457-5464)
WoS: Q3, IF: 1.905, JCR citations: 9
SCImago: Q2, h-index: 203, Scopus citations: 8
[Google scholar citations: 13]
24. O. Guilatt, **B. Apter**, U. Efron (2011)
Erratum: Light absorption enhancement in thin silicon film by embedded
metallic nanoshells
Optics Letters, 36(7), (page 1239)
WoS: Q2, IF: 3.560, JCR citations: 2
SCImago: Q1, h-index: 277, Scopus citations: 2
[Google scholar citations: 4]
25. S.A. Popescu, **B. Apter**, N. Mirchin, U. Gorodetsky, I. Lapsker, A. Peled,
L. Duta, G. Dorcioman, A. Popescu, I.N. Mihailescu (2011)
Study of polyethylene nanolayers by evanescent light microscopy
Applied Physics A, Materials Science & Processing, 104(3), (997-1002)
WoS: Q2, IF: 2.983, JCR citations: 3
SCImago: Q2, h-index: 154, Scopus citations: 2
[Google scholar citations: 4]
26. M. Gankin, S.A. Popescu, **B. Apter**, N. Mirchin, I. Lapsker, A. Peled (2011)
Differential evanescent light intensity imaging of nanothin films:
Simulation of the scattered field
Physica Status Solidi C: Current Topics in Solid State Physics
8(9), (2957-2960)
SCImago: Q4, h-index: 49, Scopus citation: 1
[Google scholar citation: 1]
27. O. Guilatt, **B. Apter**, U. Efron (2010)
Light absorption enhancement in thin silicon film by embedded metallic nanoshells
Optics Letters, 35(8), (1139-1141)
WoS: Q2, IF: 3.560, JCR citations: 17
SCImago: Q1, h-index: 277, Scopus citations: 17
[Google scholar citations: 23]

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

28. **B. Apter**, Y. David, I. Baal Zedaka, U. Efron (2008)
Experimental study of an ultrasmall pixel, one-dimensional liquid-crystal device
Applied Optics, 47(33), (6315-6324)
WoS: Q3, IF: 1.905, JCR citation: 1
SCImago: Q2, h-index: 203, Scopus citation: 1
[Google scholar citation: 1]
29. P. Kogan, **B. Apter**, I. Baal Zedaka, U. Efron (2008)
Resolution improvement of surface plasmon-enhanced, liquid crystal
spatial light modulator: Simulation studies
Optics Communications, 281(18), (4788-4792)
WoS: Q3, IF: 2.335, JCR citations: 8
SCImago: Q2, h-index: 139, Scopus citations: 7
[Google scholar citations: 9]
30. **B. Apter**, U. Efron (2006)
Combined blazed grating/Gires-Tournois resonator for liquid crystal beam switching
IEEE/OSA J. of Lightwave Technology, 24(2), (962-969)
WoS: Q1, IF: 4.439, JCR citations: 4
SCImago: Q1, h-index: 205, Scopus citations: 4
[Google scholar citations: 7]
31. **B. Apter**, E. Bahat-Treidel, U. Efron (2005)
Continuously controllable, wide-angle liquid crystal beam deflector
based on the transversal field effect in a three-electrode cell
Optical Engineering, 44(5), (054001-1–054001-7)
WoS: Q4, IF: 1.352, JCR citations: 5
SCImago: Q2, h-index: 109, Scopus citations: 5
[Google scholar citations: 8]
32. E. Bahat-Treidel, **B. Apter**, U. Efron (2005)
Experimental study of phase-step broadening by fringing fields
in a three-electrode liquid-crystal cell
Applied Optics, 44(15), (2989-2995)
WoS: Q3, IF: 1.905, JCR citations: 6
SCImago: Q2, h-index: 203, Scopus citations: 9
[Google scholar citations: 7]
33. E. Bahat-Treidel, **B. Apter**, U. Efron (2004)
Simple method for controlled variation of liquid crystal cell thickness
Optical Engineering, 43(12), (3021-3025)
WoS: Q4, IF: 1.352, JCR citations: 3
SCImago: Q2, h-index: 109, Scopus citations: 3
[Google scholar citations: 4]
34. U. Efron, **B. Apter**, E. Bahat-Treidel (2004)
Fringing-field effect in liquid-crystal beam steering devices:
An approximate analytical model
J. of the Optical Society of America, A: Optics, Image Science and Vision
21(10), (1996-2008)
WoS: Q3, IF: 2.104, JCR citations: 46
SCImago: Q2, h-index: 162, Scopus citations: 54
[Google scholar citations: 65]

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

35. U. Efron, I. David, V. Sinelnikov, **B. Apter** (2004)
A CMOS/LCOS image transceiver chip for smart goggle applications
IEEE Trans. on Circuits and Systems for Video Technology
14(2), (269-273)
WoS: Q1, IF: 5.859, JCR citations: 11
SCImago: Q1, h-index: 171, Scopus citations: 13
[Google scholar citations: 15]
36. **B. Apter**, U. Efron, E. Bahat-Treidel (2004)
On the fringing-field effect in liquid-crystal beam-steering devices
Applied Optics, 43(1), (11-19)
WoS: Q3, IF: 1.905, JCR citations: 134
SCImago: Q2, h-index: 203, Scopus citations: 155
[Google scholar citations: 199]
37. B.F. Apter, B.E. Kinber (1989)
Inclusion of the influence of refraction in optical tomography
Optics and Spectroscopy, 67(6), (795-798)
WoS: Q4, IF: 0.740
SCImago: Q3, h-index: 40
38. B.F. Apter, B.I. Davydov, M.R. Prokopovich (1984)
Use of radio-navigation systems to control train movement
Measurement Techniques (Historical Archive), 27(5), (416-418)
WoS: Q4, IF: 0.390 (2017)
SCImago: Q4, h-index: 22

C. REFEREED ARTICLES (non-ranked)

1. S.A. Popescu, **B. Apter**, N. Mirchin, I. Lapsker, A. Peled (2010)
Differential evanescent light intensity imaging of nanothin a-Se
dielectric films and simulation of evanescent waves
J. of Advanced Research in Physics, 1(1), 2010 (011010)

E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS**Refereed**

1. A. Handelman, **B. Apter**, G. Rosenman (2018)
Peptide nanophotonics – From bio-waveguides to integrated photonic devices
The 7th Int'l. Conf. on Advanced Materials and Systems (ICAMS 2018)
Bucharest, Romania, 18-20 October 2018 (195-197)
2. A. Handelman, **B. Apter**, N. Lapshina, G. Rosenman (2018)
Bioinspired peptide-based photonic integrated devices
Proc. Advanced Photonics Congress: Novel Optical Materials and Applications
OSA Technical Digest (online), Optical Society of America, 2018 (paper NoW4D3)
Zurich, Switzerland, 2-5 July 2018
Scopus citation: 1
[Google scholar citation: 1]

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

3. U. Efron, I. David, **B. Apter**, N. Thirer, I. Baal Zedaka, A. Ben-Guigui, O. Levy, P. Nater (2005)
A head-mounted, image transceiver-based, low vision aid
Vision 2005 – Proc. Int'l. Congress
Elsevier International Congress Series, 1282, (512-516)
4-7 April 2005, London, UK
Scopus citations: 4
[Google scholar citations: 6]
4. **B. Apter**, E. Bahat-Treidel, U. Efron (2004)
Electrooptical wide-angle beam deflector based on fringing-field-induced refractive inhomogeneity in a liquid crystal layer
Proc. 23rd IEEE Convention of Electrical & Electronic Engineers in Israel (IEEE 2004), (240-243)
[Google scholar citation: 1]
5. B.F. Apter, Yu.M. Karpets, E.A. Mikhailov, I.B. Ivolga, M.R. Prokopovytch, M.N. Pyshnenko (2001)
Image processing of small-size object
in: "Physics and Technology of its Study"
Published by the State Pedagogical University of Khabarovsk, (4-6) [in Russian]
6. B.F. Apter, I.B. Ivolga, S.V. Klimentiev, M.R. Prokopovytch (1998)
Application of the free-space optical communication for connection to INTERNET
in: "Perspective e Systems and Networks of Telecommunications"
Proc. of the Int'l. Scientific-Practical Conf. "Information Technologies for Railway Transport"
Far-Eastern State Transport University, Khabarovsk, (44-49) [in Russian]
7. B.F. Apter, I.B. Ivolga, S.V. Klimentiev, M.R. Prokopovytch (1997)
Organization of the adaptive optical channel of computer communication
Theses of the 2nd Int'l. Conf. "Problems of the Transport of Far-Eastern Region"
Academy of the Transport of Russian Federation, Vladivostok, (page 137) [in Russian]
8. M.R. Prokopovytch, B.F. Apter, I.B. Ivolga (1997)
Objectives, based on Fresnel lenses
Theses of the 2nd Int'l. Conf. "Problems of the Transport of Far-Eastern Region"
Academy of the Transport of Russian Federation, Vladivostok, (134) [in Russian]
9. B.F. Apter, I.B. Ivolga, S.V. Klimentiev, M.R. Prokopovytch (1997)
Use of flat optical elements in atmospheric optical communication systems
Proc. 43rd Scientific Conf., Khabarovsk State Pedagogical University
Khabarovsk, 5, (3-5) [in Russian]
10. B.F. Apter, I.B. Ivolga, S.V. Klimentiev, M.R. Prokopovytch (1996)
Free space optical communication channel
In: "Optical and Electrical Processes in Crystals"
Proc. of the Far-Eastern Transport Academy, Khabarovsk, (42-45) [in Russian]
11. B.F. Apter, I.B. Ivolga, S.V. Klimentiev, M.R. Prokopovytch (1996)
Duration of files transmission via free-space optical channel
Proc. 42nd Scientific Conf., State Pedagogical University, Khabarovsk
Part 3, (36-37) [in Russian]
12. B.F. Apter, S.V. Klimentiev, M.R. Prokopovytch (1995)
Experimental free-space optical communication system
Theses of the Regional Scientific Conf. "Increase of Transport Effectiveness"
Far-Eastern Transport Academy, Khabarovsk, (page 182) [in Russian]

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13. B.F. Apter, Yu.M. Karpets, V.I. Stroganov (1991)
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NPO VNIIFTRI, Moscow, (155-156) [in Russian]
14. B.F. Apter (1991)
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in: "Investigations of Solid State Electrical and Optical Properties"
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15. B.F. Apter, B.E. Kinber (1989)
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16. B.F. Apter, B.E. Kinber (1988)
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19. B.F. Apter, B.I. Davydov, M.R. Propovytch (1983)
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Economy", VNIIFTRI, Moscow, (7-8) [in Russian]

E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS**Non Refereed**

1. **B. Apter**, B. Fainberg, A. Handelman, I. Lapsker, A. Accardo, C. Diaferia,
G. Morelli, G. Rosenman (2020)
Fluorescence waveguiding in amyloidogenic fibers
SPIE Proc. 11360, Neurophotonics, (63-72)
JCR citation: 1
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2. B.D. Fainberg, N.N. Rosanov, N.A. Veretenov, C. Apter (2017)
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Surface polaritons, bistability and switching waves
SPIE Proc., 10360, Light Manipulating Organic Materials and
Devices IV, (18 pages) **[invited]**
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Scopus citation: 1
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E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS, contd.**Non Refereed**

3. A. Handelman, **B. Apter**, G. Rosenman (2016)
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SPIE Proc. 9895, Organic Photonics VII, (20-28)
Scopus citation: 1
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4. A. White, M. Galperin, **B. Apter**, B.D. Fainberg (2013)
Non-Markovian theory of collective plasmon-molecule excitations in nanojunctions combined with classical electrodynamic simulations
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JCR citation: 1
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5. Y. David, **B. Apter**, N. Thirer, I. Baal-Zedaka, U. Efron (2009)
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6. O. Guilatt, **B. Apter**, U. Efron (2009)
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Scopus citations: 2
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7. O. Guilatt, **B. Apter**, U. Efron (2009)
Fast surface plasmon-polariton-based optical phase modulator
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8. P. Kogan, **B. Apter**, I. Baal-Zedaka, U. Efron (2007)
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SPIE Proc. 6654, 66540N (147-158)
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SPIE Proc., 6332, Liquid Crystals X, (105-119)
Scopus citation: 1
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10. O. Levy, **B. Apter**, U. Efron (2006)
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SPIE Proc., 6289, Novel Optical Systems Design and Optimization IX, (143-153)
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11. U. Efron, **B. Apter**, E. Bahat-Treidel (2005)
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SPIE Proc. 5936, Liquid Crystals IX, (130-141)
Scopus citations: 9
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12. **B. Apter**, E. Bahat-Treidel, U. Efron (2005)
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Conf. on Spatial Light Modulators, San Diego, CA, USA, 31 July-1 August 2001
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14. **B. Apter**, E. Schwartz, U. Efron (2001)
LC-beam steering device based on sub-wavelength diffractive optical element structure
SPIE Proc. 4294, Projection Displays VII, (92-101)
JCR citations: 4
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15. B. Ye. Kinber, B.F. Apter (1991)
Consideration of refraction in optical tomography using perturbation theory for rays
Int'l. Soc. for Optical Engineering (SPIE), 1843, (48-57)

F. PAPERS PRESENTED AT SCIENTIFIC MEETINGS (UNPUBLISHED)

- *2023 Workshop: Peptide Materials – Sorrento 2013 - Sorrento 2023: A Decade of Peptide Materials, Sorrento, Naples, Italy, 26-28 October 2023
Oral presentation: *Peptide nanophotonics* [plenary lecture presented online]
- *2023 6th International Symposium: Nanotechnology from Academia to Industry 2023 (NTAI-2023), HIT – Holon Institute of Technology, Holon, Israel, 14-15 June 2023
Poster presentation: *Hidden optical imaging in this polymer films with embedded fluorescent peptide nanodots*
(P. Rosenbaum, H. Bahrum, A. Inberg, G. Rosenman, B. Apter)
- *2023 The 15th International Meeting on Ferroelectricity (IMF 2023), Tel-Aviv, Israel, 26-30 March 2023
Oral presentation: *Biological materials: Ferroelectricity governed by biological refolding*
(G. Rosenman, B. Apter) **[invited]**
- 2019 Israeli-Italian Workshop: Peptide Nanophotonics – From Bioinspired Nanomaterials to Biomedical Nanoprobes, Ministry of Science and Technology, HIT, Holon, Israel, 31 October 2019
Oral presentation: *Peptide nanophotonics: Physics and applications*
- 2019 Italian-Israeli Workshop: Nanoscale Fluorescent Light Sources and Light Delivering Systems Towards Precision Medicine, University of Naples, Italy, 8-9 May 2019
Oral presentation: *Long-range propagation of fluorescence in PEG-F6 fibers*
- 2017 The 4th Conference of the Israel Society for Biotechnology Engineering, Tel-Aviv, Israel, 17 December 2017
Oral presentation: *Peptide nanophotonics: From optical waveguiding to biochips*
(G. Rosenman, N. Lapshina, A. Handelman, B. Apter)
- 2015 61st Annual Meeting of the Israel Physical Society, Bar Ilan University, Ramat Gan, Israel 13 December 2015
Oral presentation: *Ion assisted evaporation system for complex thin films deposition*
(A. Axelevitch, B. Apter)
- 2015 Fourth International Conference on Multifunctional, Hybrid and Nanomaterials, Sitges, Spain, 9-13 March 2015
Oral Presentation: *Investigation of the process of creating nanostructures forming surface plasmon-polaritons*
(A. Axelevitch, B. Apter)

* Since last promotion

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

- 2014 16th International Conference on Thin Films, Dubrovnik, Croatia, 13-16 October 2014
Oral Presentation: *In-situ investigation of optical transmission in thin metal films*
(A. Axelevitch, B. Apter, B. Gorenstein)
- 2014 The 16th Israeli Plasma Science and Applications Conference (IPSTA-2014), Tel-Aviv, Israel, 5 February 2014
Oral Presentation: *Optical emission spectroscopy of sputtering process in the plane plasma discharge*
(A. Axelevitch, B. Apter) [extended abstract]
- 2011 Optical Engineering 2011, Holon Institute of Technology, Holon, Israel
Oral Presentation: 1. *Ring-type Plasmon resonance in metallic nanoshells*
(B. Apter, O. Guilatt, U. Efron)
2. *3d optical scanner based on lock-in imaging technique*
(M. Krin, B. Apter)
- 2011 3rd OASIS - The 13th Meeting on Optical Engineering and Science in Israel, Israel Trade Fairs and Convention Center, Tel-Aviv, Israel, 9-10 March 2011
Poster Presentation: *Diffraction optical element combined with liquid crystal switchable Gires-Tournois resonator*
(B. Apter, U. Efron)
- 2010 The 23rd General Conference of the Condensed Matter Division of the European Physical Society (CMD 23), Warsaw, Poland, 30 August-3 September 2010
Poster Presentation: *On the electro-optical coefficients of liquid crystals*
(R. Israeli, U. Efron, B. Apter)
- 2010 Fourth International Conference on Optical, Optoelectronic and Photonic Materials and Applications (ICOOPMA 2010), Budapest, Hungary, 15-20 August 2010
Oral Presentation: *Differential evanescent light intensity imaging of nanothin films: simulation of extraction power*
(M. Gankin, S.A. Popescu, B. Apter, N. Mirchin, I. Lapsker, A. Peled)
- 2010 Joint MmDE-IEEE ROMSC International Conference – Materials for Electrical Engineering and IEEE Romanian Magnetism Society Chapter Conference, Iasi, Romania, 6-8 June 2010
Poster Presentation: *Differential evanescent light intensity imaging of nanothin films: simulation of extraction power*
(S.A. Popescu, B. Apter, N. Mirchin, I. Lapsker, A. Peled)
- 2009 2nd OASIS - The 12th Meeting on Optical Engineering and Science in Israel, 16-17 March 2009, Israel Trade Fairs & Convention Center, Tel-Aviv, Israel
Oral Presentation: *Fast, surface plasmon-polariton-based optical phase modulator*
(M.Sc. study performed under the supervision of Prof. Uzi Efron and Dr. Boris Apter)
Poster Presentations: 1. *Optical design of smart goggles for the visually impaired, combining a display and an eye tracker*
(Y. Gershon, B. Apter, U. Efron)
2. *Single chip, head-mounted eye-tracker display system*
(Y. David, B. Apter, N. Thirer, Y. Gershon, I. Baal-Zedaka, U. Efron)
- 2007 OASIS – The 11th Meeting on Optical Engineering and Science in Israel, 26-27 March 2007, Tel-Aviv, Israel
Oral Presentation: *Experimental studies and computer simulation of an ultra small pixel SLM*
(B. Apter, Y. David, I. Zedaka, U. Efron)
Poster Presentations: 1. *Low vision goggles-optical design studies*
(O. Levy, B. Apter, U. Efron)
2. *On the fundamental limits of the electro-optical coefficients of liquid crystals*
(R. Israeli, U. Efron, B. Apter, B. Lembrikov)
3. *High resolution, LC spatial light modulator with patterned metal layer supporting surface plasmons*
(P. Kogan, B. Apter, U. Efron)
- 1998 XVI International Conference on Coherent and Nonlinear Optics, Moscow, Russia

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

- 1998 International Symposium "Principles and Processes of Synthesis of Inorganic Materials", Khabarovsk, Russia
- 1987 All-Union Scientific Conference "High-Speed Photography, Photonics and Metrology of Fast Processes", Moscow, USSR
- 1984 All-Union Scientific Conference "Application of Modern Physical Methods for Nondestructive Analysis and Testing", Khabarovsk, USSR

H. OTHER PUBLICATIONS**H1. ENCYCLOPEDIAS**

- *1. A. Handelman, B. Apter, S. Lavrov, A. Kudryavtsev, E. Mishina, G. Rosenman (2022)
Nonlinear optical phenomena and waveguiding effects in bioinspired peptide nanostructures
in: *Encyclopedia of Nanoscience and Nanotechnology*, Vol.4 (197-218)
H.S. Nalwa (ed.)
American Scientific Publishers

H2. REPORTS

1. B.F. Apter (1998)
Optical tomography of mediums with a spatial inhomogeneity of nonlinear properties
Bulletin of Scientific Reports, № 2, Far-Eastern State Transport University
Khabarovsk, (25-27) [in Russian]
2. M.R. Prokopovytch, B.F. Apter, I.B. Ivogla, S.V. Klimentiev (1997)
Optical atmospheric fluctuations
Theses of the Reports "Increase of Effectiveness of the Railway Transport of Siberia and Far East"
Far-Eastern State Transport University, Khabarovsk, (193-194) [in Russian]
3. B.F. Apter, I.B. Ivogla, S.V. Klimentiev, M.R. Prokopovytch (1997)
Experimental researches of atmospheric optical communication
Theses of the Reports "Increase of Effectiveness of the Railway Transport of Siberia and Far East"
Far-Eastern State Transport University, Khabarovsk, (191-192) [in Russian]
4. B.F. Apter (1997)
Geometro-optical and diffraction approaches to inverse problems of optical tomography
Theses of the Reports "Increase of Effectiveness of a Railway Transport of Siberia and Far East"
Far-Eastern State Transport University, Khabarovsk, 1997 (190-191) [in Russian]
5. B.F. Apter, Yu.M. Karpets, G.P. Starichenko (1996)
Tomography for crystals using pyroelectric effect
Bulletin of Scientific Reports, № 1, Far-Eastern Transport Academy
Khabarovsk, 1996 (28-30) [in Russian]

H3. PATENTS

1. B.F. Apter, B.I. Davydov, I.B. Ivogla, E.A. Mikhailov, V.V. Sukhobokov (1987)
Selector of signals of moving objects
USSR Patent. № 1344214 (8/7/1987) [in Russian]

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H. OTHER PUBLICATIONS, contd.**Patent Application Publication:**

1. U. Efron, Y. David, B. Apter, N. Thirer, I. Baal-Zedaka (2009)
Low vision aid device
Int'l. Publication No.: WO 2006/106505 A1, Int'l. Publication Date: 12 October 2006
Publication No.: US 2009/0040461 A1, Publication Date: 12 February 2009
[Google scholar citations: 11]

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- *1. P. Rosenbaum, H. Bahrum, A. Inberg, G. Rosenman, B. Apter (2023)
Hidden optical imaging in this polymer films with embedded fluorescent peptide nanodots
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2. G. Rosenman, N. Lapshina, A. Handelman, B. Apter (2017)
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3. A. Axelevitch, B. Apter (2015)
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Dubrovnik, Croatia, 13-16 October 2014 (page 56)
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Simulation of extraction power
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Budapest, Hungary, 15-20 August 2010
8. S.A. Popescu, B. Apter, N. Mirchin, I. Lapsker, A. Peled (2010)
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Simulation of extraction power
Joint MmdE-IEEE ROMSC Int'l. Conf. 2010 – Materials for Electrical Engineering
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9. B.F. Apter, M.R. Prokopovytch (1998)
Nonlinear optical tomography of inhomogeneities of refractive index
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H. OTHER PUBLICATIONS, contd.**H4. ABSTRACTS****Refereed**

10. B.F. Apter, Yu.M. Karpets, S.V. Klimentiev, M.R. Prokopovytch (1998)
Pyroelectrical effect and distribution of heat in crystal
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Khabarovsk, Dalnauka, (page 129) [in Russian]
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Tomography equation for refractive mediums
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12. B.F. Apter, E.A. Mikhailov, V.V. Sukhobokov, V.I. Chistyakov (1984)
Application of TV systems for observation of low-illuminated moving objects
Theses of the All-Union Scientific Conf. "Application of Modern Physical Methods for Nondestructive Analysis and Testing", NPO DALSTANDART
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H5. ABSTRACTS**Non Refereed**

1. A. Axelevitch, B. Apter (2015)
Ion assisted evaporation system for complex thin films deposition
61st Annual Meeting of the Israel Physical Society
Bar Ilan University, Ramat Gan, Israel, 13 December 2015 [oral]
2. A. Axelevitch, B.F. Apter (2014)
Optical emission spectroscopy of sputtering process in the plane plasma discharge
The 16th Israeli Plasma Science and Applications Conf. (IPSTA-2014)
Tel-Aviv, Israel, 5 February 2014
Book of Abstracts (32-33) [oral]

H6. GENERAL

1. B.F. Apter, B.I. Davydov, M.R. Prokopovytch (1984)
Surface electromagnetic wave propagation along railroad
Deposited manuscript, kept in CNIITEI MPS, USSR, No.2648, 1984 [in Russian]