

## Assoc. Prof. SERDAR KOCAMAN

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: F-7582-2013

ScopusID: 24775972600

Yoksis Researcher ID: 203341

### Education Information

Doctorate, Columbia University, Mühendislik, Elektrik Mühendisliği, United States Of America 2008 - 2011

Postgraduate, Columbia University, Mühendislik, Elektrik Mühendisliği, United States Of America 2007 - 2008

Undergraduate, Bogazici University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey 2002 - 2007

Undergraduate Double Major, Bogazici University, Faculty Of Arts And Sciences, Department Of Physics, Turkey 2002 - 2007

### Dissertations

Doctorate, On-chip Group and Phase Velocity Control for Classical and Quantum Optical Devices, Columbia University In The City Of New York, 2011

### Research Areas

Electrical and Electronics Engineering, Electronic, Nanotechnology, Optics and Photonics, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2020 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2019 - 2020

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2014 - 2019

### Supervised Theses

KOCAMAN S., Optimization, fabrication, and characterization of dual-band InGaAs NBN photodetectors, Postgraduate, A.ŞAHİN(Student), 2022

KOCAMAN S., Active surface passivation for swir InGaAs photodetectors, Postgraduate, N.İŞİK(Student), 2022

KOCAMAN S., Investigation of screen-printed and evaporated metal contacts on boron implanted emitter, Postgraduate, E.ÖZMEN(Student), 2021

KOCAMAN S., Two dimensional silicon photonic crystal band gap applications for optical bio-sensing and modulation, Postgraduate, S.CEM(Student), 2021

Kocaman S., BEK A., Barrier engineering for high-performance nBn infrared photodetectors, Doctorate, F.UZGUR(Student), 2020

Kocaman S., A ONE DIMENSIONAL SLOT MODE PHOTONIC CRYSTALNANOBEAM CAVITY DESIGN FOR OPTICAL BIO-SENSINGAPPLICATIONS, Postgraduate, M.ERDİL(Student), 2020

Kocaman S., High operating temperature mid-wave infrared hgcdte photodiode design, Postgraduate, E.YURTSEVEN(Student), 2019

Kocaman S., Simulation of dynamical refractive index change in on-chip optical devices, Postgraduate, A.ASLAN(Student), 2019

Kocaman S., Comparison of multi-cavity arrays for on-chip WDM applications, Postgraduate, H.ERDİNÇ(Student), 2019

KOCAMAN S., Photonic integrated circuit components with amorphous structures, Postgraduate, M.CAN(Student), 2018

KOCAMAN S., Integrated optical modulators based on photonic crystals, Postgraduate, A.GÖVDELİ(Student), 2018

KOCAMAN S., High performance near/short wavelength infrared megapixel InGaAs focal plane array fabrication development and new design proposals, Postgraduate, U.KARACA(Student), 2018

KOCAMAN S., YÜCE E., Controlling light inside a multi-mode fiber by wavefront shaping, Postgraduate, H.İBRAHİM(Student), 2018

Bek A., Kocaman S., Radiometry-based range prediction for mid- and long-wave infrared imaging systems, Postgraduate, B.BERKAN(Student), 2018

KOCAMAN S., High performance HgCdTe photodetector desings via dark current suppression, Postgraduate, Y.ÖZER(Student), 2018

KOCAMAN S., YÜCE E., Zero-n gap design via modulation of hexagonal photonic crystal lattice, Postgraduate, S.MORADI(Student), 2017

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Active Surface Passivation for mesa type short-wave infrared InGaAs Photodetectors**  
Işık N., KOCAMAN S.  
INFRARED PHYSICS & TECHNOLOGY, vol.143, 2024 (SCI-Expanded)
- II. **Isotropic gap formation, localization, and waveguiding in mesoscale Yukawa-potential amorphous structures**  
Sarihan M. C., Govdeli A., Lan Z., Yilmaz Y. B., Erdil M., Wang Y., Aras M. S., Yanik C., Panoiu N. C., Wong C. W., et al.  
Communications Physics, vol.7, no.1, 2024 (SCI-Expanded)
- III. **Rapid fabrication approach for active photonic devices by employing spin-on dopants**  
ŞAHİN A., AKDENİZ O., KOCAMAN S.  
OPTICS LETTERS, vol.49, no.15, pp.4433-4436, 2024 (SCI-Expanded)
- IV. **Integrated programmable controlled phase gate design for quantum information processing**  
Başay Y., KOCAMAN S.  
Physica Scripta, vol.98, no.10, 2023 (SCI-Expanded)
- V. **A chip-scale polarization-spatial-momentum quantum SWAP gate in silicon nanophotonics**  
Cheng X., Chang K., Xie Z., Sarihan M. C., Lee Y. S., Li Y., Xu X., Vinod A. K., KOCAMAN S., Yu M., et al.  
Nature Photonics, vol.17, no.8, pp.656-665, 2023 (SCI-Expanded)
- VI. **Electrical crosstalk suppression for mesa-based in-device passivated InGaAs photodetectors**  
Çırçır K., Kocaman S.  
INFRARED PHYSICS & TECHNOLOGY, vol.127, 2022 (SCI-Expanded)

- VII. **Dual-band InGaAs nBn photodetectors at 2  $\mu$  m**  
ŞAHİN A., GÜL M. S., UZGUR F., KOCAMAN S.  
APPLIED PHYSICS LETTERS, vol.120, no.9, 2022 (SCI-Expanded)
- VIII. **Linear optical deterministic and reconfigurable SWAP gate**  
Bozkurt A. B., KOCAMAN S.  
QUANTUM INFORMATION PROCESSING, vol.20, no.9, 2021 (SCI-Expanded)
- IX. **Highly Sensitive and Tunable Fano-Like Rod-Type Silicon Photonic Crystal Refractive Index Sensor**  
KILIÇ S. C., KOCAMAN S.  
IEEE Sensors Journal, vol.21, no.6, pp.7551-7557, 2021 (SCI-Expanded)
- X. **On-Chip Switch and Add/Drop Multiplexer Design With Left-Handed Behavior in Photonic Crystals**  
GÖVDELİ A., KOCAMAN S.  
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS, vol.26, no.2, 2020 (SCI-Expanded)
- XI. **A 2D Slotted Rod Type PhC Cavity Inertial Sensor Design for Impact Sensing**  
Orsel O. E., ERDİL M., KOCAMAN S.  
IEEE JOURNAL OF QUANTUM ELECTRONICS, vol.56, no.1, 2020 (SCI-Expanded)
- XII. **SWIR nightglow radiation detection around room temperature with depletion-engineered HgCdTe on alternative substrates**  
Livanelioglu C., Ozer Y., KOCAMAN S.  
JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS, vol.37, no.1, pp.56-66, 2020 (SCI-Expanded)
- XIII. **Quantitative analysis of nonlinear dynamics of quantum light transmission in strongly coupled quantum dot-cavity systems**  
Tugen A., KOCAMAN S.  
OPTICS COMMUNICATIONS, vol.436, pp.146-150, 2019 (SCI-Expanded)
- XIV. **Optimization of in-device depleted passivation layer for InGaAs photodetectors**  
Çırçır K., Dolas M. H., Kocaman S.  
Infrared Physics and Technology, vol.97, pp.360-364, 2019 (SCI-Expanded)
- XV. **Barrier engineering for HgCdTe unipolar detectors on alternative substrates**  
Uzgur F., Kocaman S.  
INFRARED PHYSICS & TECHNOLOGY, vol.97, pp.123-128, 2019 (SCI-Expanded)
- XVI. **High-Q Slot-Mode Photonic Crystal Nanobeam Cavity Biosensor With Optomechanically Enhanced Sensitivity**  
Erdil M., Ozer Y., Kocaman S.  
IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS, vol.25, 2019 (SCI-Expanded)
- XVII. **InGaAs nBn SWIR detector design with lattice-matched InAlGaAs barrier**  
UZGUR F., KOCAMAN S.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.27, no.1, pp.1-10, 2019 (SCI-Expanded)
- XVIII. **All InGaAs Unipolar Barrier Infrared Detectors**  
Uzgur F., Karaca U., Kizilkan E., Kocaman S.  
IEEE TRANSACTIONS ON ELECTRON DEVICES, vol.65, pp.1397-1403, 2018 (SCI-Expanded)
- XIX. **Stability Formulation for Integrated Opto-mechanic Phase Shifters**  
Ozer Y., Kocaman S.  
SCIENTIFIC REPORTS, vol.8, 2018 (SCI-Expanded)
- XX. **Integrated Optical Modulator Based on Transition between Photonic Bands**  
Gövdeli A., Sarihan M. C., Karaca U., Kocaman S.  
SCIENTIFIC REPORTS, vol.8, 2018 (SCI-Expanded)
- XXI. **Fully Depleted InP Nano-Layer for In-Device Passivation of InGaAs SWIR Detectors**  
Dolas M. H., KOCAMAN S.  
IEEE ELECTRON DEVICE LETTERS, vol.38, no.12, pp.1692-1695, 2017 (SCI-Expanded)
- XXII. **Zero average index design via perturbation of hexagonal photonic crystal lattice**

- Moradi S., GÖVDELİ A., KOCAMAN S.  
OPTICAL MATERIALS, vol.73, pp.577-584, 2017 (SCI-Expanded)
- XXIII. **Generation recombination suppression via depletion engineered heterojunction for alternative substrate MWIR HgCdTe infrared photodetectors**  
Ozer Y., KOCAMAN S.  
JOURNAL OF APPLIED PHYSICS, vol.122, no.14, 2017 (SCI-Expanded)
- XXIV. **Comparison of coherently coupled multi-cavity and quantum dot embedded single cavity systems**  
KOCAMAN S., Sayan G.  
OPTICS EXPRESS, vol.24, no.25, pp.29330-29342, 2016 (SCI-Expanded)
- XXV. **Near-infrared Hong-Ou-Mandel interference on a silicon quantum photonic chip**  
Xu X., Xie Z., Zheng J., Liang J., Zhong T., Yu M., Kocaman S., Lo G., Kwong D., Englund D. R., et al.  
Optics Express, vol.21, no.4, pp.5014-5024, 2013 (SCI-Expanded)
- XXVI. **On-chip optical filters with designable characteristics based on an interferometer with embedded silicon photonic structures**  
Kocaman S., Aras M. S., Panoiu N. C., Lu M., Wong C. W.  
Optics Letters, vol.37, pp.665-667, 2012 (SCI-Expanded)
- XXVII. **Zero phase delay in negative-refractive-index photonic crystal superlattices**  
Kocaman S., Aras M., Hsieh P., McMillan J., Biris C., Panoiu N., Yu M., Kwong D., Stein A., Wong C.  
Nature Photonics, vol.5, no.8, pp.499-505, 2011 (SCI-Expanded)
- XXVIII. **Deterministic integrated tuning of multicavity resonances and phase for slow-light in coupled photonic crystal cavities**  
Gu T., Kocaman S., Yang X., McMillan J., Yu M., Lo G., Kwong D., Wong C.  
Applied Physics Letters, vol.98, no.12, 2011 (SCI-Expanded)
- XXIX. **Observations of temporal group delays in slow-light multiple coupled photonic crystal cavities**  
Kocaman S., Yang X., McMillan J., Yu M., Kwong D., Wong C.  
Applied Physics Letters, vol.96, no.22, 2010 (SCI-Expanded)
- XXX. **Observation of zeroth-order band gaps in negative-refraction photonic crystal superlattices at near-infrared frequencies**  
Kocaman S., Chatterjee R., Panoiu N., McMillan J., Yu M., Osgood R., Kwong D., Wong C.  
Physical Review Letters, vol.102, no.20, 2009 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Analysis of quantum-dot-embedded multicavity arrays for on-chip WDM applications**  
Erdinc H., Kocaman S.  
TURKISH JOURNAL OF PHYSICS, vol.42, pp.356-370, 2018 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **On-chip electro-optic modulator based on left-handed photonic crystals**  
Başay Y., Akdeniz O., Gövdeli A., Yanık C., Çelik S., KOCAMAN S.  
Silicon Photonics XIX 2024, California, United States Of America, 29 - 31 January 2024, vol.12891
- II. **Spin-on Dopant Based Fabrication Methodology of Integrated Photonic Devices**  
ŞAHİN A., AKDENİZ O., KOCAMAN S.  
CLEO: Science and Innovations in CLEO 2024, CLEO: S and I 2024 - Part of Conference on Lasers and Electro-Optics, North Carolina, United States Of America, 5 - 10 May 2024
- III. **Inter-pixel crosstalk improvement based on a thin crosstalk-block layer for mesa-based InGaAs photodetectors**  
ÇIRÇIR K., KOCAMAN S.

Quantum Sensing and Nano Electronics and Photonics XIX 2023, California, United States Of America, 29 January - 02 February 2023, vol.12430

- IV. **Localization and isotropic gap formation in chip-scale Yukawa potential metastructures**  
Sarihan M. C., GÖVDELİ A., Lan Z., Yilmaz Y. B., ERDİL M., Aras M. S., Yanik C., Panoiu N. C., Wong C. W., KOCAMAN S.  
2023 Conference on Lasers and Electro-Optics, CLEO 2023, California, United States Of America, 7 - 12 May 2023
- V. **Crosstalk Analysis for Mesa-based In-device Passivated InGaAs Photodetectors**  
ÇIRÇIR K., KOCAMAN S.  
Conference on Optical Components and Materials XIX at SPIE OPTO Conference, ELECTR NETWORK, 22 January - 28 February 2022, vol.11997
- VI. **A numerical design for SWIR/eSWIR dual-band operation with InGaAs nBn structures**  
ŞAHİN A., GÜL M. S., Uzgur F., KOCAMAN S.  
Conference on Quantum Sensing and Nano Electronics and Photonics XVIII Part of SPIE Photonics West OPTO Conference, ELECTR NETWORK, 22 January - 24 February 2022, vol.12009
- VII. **Design of integrated photonic controlled-phase gate with programmable phase for quantum applications**  
Basay Y., KOCAMAN S.  
Quantum Computing, Communication, and Simulation II 2022, Virtual, Online, 20 - 24 February 2022, vol.12015
- VIII. **Quantum State Tomography of an On-chip Polarization-Spatial Qubit SWAP Gate**  
Cheng X., Xie Z., Chang K., Sarihan M. C., Seung Lee Y., Vinod A. K., Li Y., Xu X., KOCAMAN S., Yu M., et al.  
2021 Conference on Lasers and Electro-Optics, CLEO 2021, Virtual, Online, United States Of America, 9 - 14 May 2021
- IX. **High Sensitivity Fano-Like Rod-Type Silicon Photonic Crystal Refractive Index Sensor**  
KILIÇ S. C., KOCAMAN S.  
14th International Congress on Artificial Materials for Novel Wave Phenomena, Metamaterials 2020, New York, United States Of America, 27 September - 03 October 2020, pp.385-387
- X. **Low dark current designs for mesa type SWIR photodetectors**  
ŞAHİN A., KOCAMAN S.  
Conference on Infrared Technology and Applications XLVI, ELECTR NETWORK, 27 April - 08 May 2020, vol.11407
- XI. **An Efficient On-chip Single-photon SWAP Gate for Entanglement Manipulation**  
Cheng X., Chang K., Xie Z., Lee Y. S., Sarihan M. C., Kumar A., Li Y., KOCAMAN S., Zhong T., Yu M., et al.  
Conference on Lasers and Electro-Optics (CLEO), San-Jose, Costa Rica, 10 - 15 May 2020
- XII. **On-chip flexible waveguides with amorphous structures in the near-infrared**  
Smihan M. C., GÖVDELİ A., Yilmaz Y. B., Erdal M., Aras M. S., Yanik C., Wong C. W., KOCAMAN S.  
Conference on Lasers and Electro-Optics (CLEO), San-Jose, Costa Rica, 10 - 15 May 2020
- XIII. **Flexible waveguides with amorphous photonic materials**  
Sarihan M. C., Yilmaz Y. B., ERDİL M., Aras M. S., Yanik C., Wong C. W., KOCAMAN S.  
Conference on Optical Components and Materials XVI, San-Francisco, Costa Rica, 4 - 06 February 2019, vol.10914
- XIV. **Tunable integrated optical modulator with dynamical photonic band transition of photonic crystals**  
GÖVDELİ A., KOCAMAN S.  
Conference on Silicon Photonics XIV, San-Francisco, Costa Rica, 4 - 06 February 2019, vol.10923
- XV. **On-chip deterministic optical SWAP gate**  
Bozkurt A. B., KOCAMAN S.  
Conference on Quantum Nanophotonic Materials, Devices, and Systems, California, United States Of America, 14 - 15 August 2019, vol.11091
- XVI. **Breaking the trade-off between Q-factor and sensitivity for high-Q slot mode photonic crystal nanobeam cavity biosensors with optomechanical feedback**  
ERDİL M., KOCAMAN S.  
Conference on Microfluidics, BioMEMS, and Medical Microsystems XVII, San-Francisco, Costa Rica, 2 - 04 February 2019, vol.10875
- XVII. **Integrated optical modulators with zero index metamaterials based on photonic crystal slab waveguides**

Yildirim M., GÖVDELİ A., KOCAMAN S.

Conference on Integrated Optics - Devices, Materials, and Technologies XXIII, San-Francisco, Costa Rica, 4 - 07 February 2019, vol.10921

- XVIII. A Dual-Band HgCdTe nBn Infrared Detector Design**  
UZGUR F., KOCAMAN S.  
Conference on Infrared Sensors, Devices, and Applications IX as part of SPIE Optics + Photonics Conference, California, United States Of America, 14 - 15 August 2019, vol.11129
- XIX. Tuning of 2D Rod-Type Photonic Crystal Cavity for Optical Modulation and Impact Sensing**  
Orsel O. E., ERDİL M., Yanik C., KOCAMAN S.  
Conference on MOEMS and Miniaturized Systems XVIII, San-Francisco, Costa Rica, 2 - 04 February 2019, vol.10931
- XX. Optomechanical impact sensor with photonic crystal structures**  
Orsel O. E., ERDİL M., Yanik C., KOCAMAN S.  
Active Photonic Platforms XI Conference 2019, California, United States Of America, 11 - 15 August 2019, vol.11081
- XXI. Dynamical FDTD Method for Coupled Integrated Resonators**  
Aslan A., KOCAMAN S.  
31st Annual IEEE Photonics Conference (IPC) of the IEEE-Photonics-Society, Preston, United Kingdom, 30 September - 04 October 2018
- XXII. Asymmetric Band Gaps in Amorphous Photonic Materials**  
Sarihan M. C., GÖVDELİ A., Aras M. S., Yanik C., Wong C. W., KOCAMAN S.  
31st Annual IEEE Photonics Conference (IPC) of the IEEE-Photonics-Society, Preston, United Kingdom, 30 September - 04 October 2018
- XXIII. Depletion Engineered Heterojunction pn HgCdTe Infrared Photodetector Structures**  
livanelioğlu c., Yiğit Ö., KOCAMAN S.  
2018 IEEE Photonics Conference (IPC), Reston, VA, 30 September - 04 October 2018
- XXIV. Band-to-Band Transition Based On-Chip Optical Modulator**  
GÖVDELİ A., Sarihan M. C., Karaca U., KOCAMAN S.  
31st Annual IEEE Photonics Conference (IPC) of the IEEE-Photonics-Society, Preston, United Kingdom, 30 September - 04 October 2018
- XXV. Hybrid Integration of Broadband Silicon Modulators and InGaAs Photodetectors**  
Karaca U., GÖVDELİ A., KOCAMAN S.  
31st Annual IEEE Photonics Conference (IPC) of the IEEE-Photonics-Society, Preston, United Kingdom, 30 September - 04 October 2018
- XXVI. Physical Stability Analysis for Optical MEMS Phase Shifters**  
Ozer Y., KOCAMAN S.  
31st Annual IEEE Photonics Conference (IPC) of the IEEE-Photonics-Society, Preston, United Kingdom, 30 September - 04 October 2018
- XXVII. Depletion Engineered Heterojunction p plus -n HgCdTe Infrared Photodetector Structures**  
Livanelioglu C., Ozer Y., KOCAMAN S.  
31st Annual IEEE Photonics Conference (IPC) of the IEEE-Photonics-Society, Preston, United Kingdom, 30 September - 04 October 2018
- XXVIII. Optomechanically Enhanced High-Q Slot Mode Photonic Crystal Nanobeam Cavity**  
ERDİL M., KOCAMAN S.  
31st Annual IEEE Photonics Conference (IPC) of the IEEE-Photonics-Society, Preston, United Kingdom, 30 September - 04 October 2018
- XXIX. Characterization of Depleted In-Device Passivation Layer for InGaAs Photodetectors**  
ÇIRÇIR K., Dolaş M. H., KOCAMAN S.  
Quantum Structure Infrared Photodetector International Conference QSIP 2018, 16 - 21 June 2018
- XXX. nBn Detector Designs Based on Delta Doping and Compositional Grading**  
UZGUR F., KOCAMAN S.  
Quantum Structure Infrared Photodetector International Conference QSIP 2018, 16 - 21 June 2018
- XXXI. Comparative Study for Coupled High-Q Cavity Quantum Dot System**

Tugen A., KOCAMAN S.

30th Annual Conference of the IEEE-Photonics-Society (IPC), Florida, United States Of America, 1 - 05 October 2017, pp.273-274

- XXXII. **Çip Üzeri Fotonik Ağlar için Bütünleşik Optik Bileşenler**  
KOCAMAN S.  
19. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Turkey, 29 September 2017
- XXXIII. **A chip-scale single-photon SWAP gate as integrated interface between polarization and spatial-momentum qubits**  
Xie Z., Li Y., Xu X., Kumar A., Kocaman S., Zhong T., Veitia A., Yu M., Kwong D., Wong F. N. C., et al.  
Conference on Lasers and Electro-Optics (CLEO), San-Jose, Costa Rica, 14 - 19 May 2017
- XXXIV. **Al/Sb Free InGaAs Unipolar Barrier Infrared Detectors**  
UZGUR F., Karaca U., Kizilkan E., KOCAMAN S.  
Conference on Infrared Technology and Applications XLIII, California, United States Of America, 9 - 13 April 2017, vol.10177
- XXXV. **A comparative design study for MWIR HgCdTe detectors**  
Ozer Y., KOCAMAN S.  
Conference on Infrared Technology and Applications XLIII, California, United States Of America, 9 - 13 April 2017, vol.10177
- XXXVI. **Optimization of Mesa Structured InGaAs Based Photodiode Arrays**  
Dolas M. H., ÇIRÇIR K., KOCAMAN S.  
Conference on Image Sensing Technologies - Materials, Devices, Systems, and Applications IV, California, United States Of America, 12 - 13 April 2017, vol.10209
- XXXVII. **Delay characteristics comparison of coherently coupled high-Q multi-cavity array and single embedded quantum dot cavity systems**  
KOCAMAN S., Sayan G. T.  
Conference on Quantum Dots and Nanostructures - Growth, Characterization, and Modeling XIV, San-Francisco, Costa Rica, 30 - 31 January 2017, vol.10114
- XXXVIII. **Performance Enhancements in High Quantum Efficiency InP Based QWIPs**  
Arslan Y., Çolakoğlu T., KOCAMAN S., BEŞİKCİ C.  
Quantum Structure Infrared Photodetector International Conference QSIP 2014, 29 June - 03 July 2014
- XXXIX. **Observation of band gaps in amorphous photonic structures with different temperatures in the near infrared**  
KOCAMAN S., McMillan J. F., Di W., Mikael R., Wong C. W.  
CLEO: 2014, San Jose, California, 8 - 13 June 2014
- XL. **Ultrafast nonlinearities and dispersion in slow-light photonic crystal lattices**  
Wong C. W., McMillan J. F., Gu T., Marko M., Li X., Hsieh P., KOCAMAN S.  
Advanced Photonics Congress, Colorado Springs, Colorado, 17 - 20 June 2012
- XLI. **Integrated optical filters based on negative-index photonic crystals**  
KOCAMAN S., Aras M. S., Panoiu N., Lu M., Wong C. W.  
Conference on Lasers and Electro-Optics 2012, San Jose, California, 6 - 11 May 2012
- XLII. **Near-field observations of self-collimation in photonic crystal superlattices**  
Hsieh P., Chung C., KOCAMAN S., Biris C., Lu M., Panoiu N., Wong C. W.  
Conference on Lasers and Electro-Optics 2012, San Jose, California, 6 - 11 May 2012
- XLIII. **Zero phase accumulation in negative-index photonic crystal superlattices**  
KOCAMAN S., Aras M. S., Hsieh P., Panoiu N., Yu M., Kwong D., Stein a., Wong C. W.  
CLEO:2011 - Laser Applications to Photonic Applications, Baltimore, Maryland, 1 - 06 May 2011
- XLIV. **Transparent high-data-rate optical transmission through broadband hitless bypass switches for chip-scale optical networks**  
Aras M. S., Biberman A., Ophir N., Stein a., KOCAMAN S., Chatterjee r., Yu M., Kwong D., Bergman k., Wong C. W.  
Conference on Lasers and Electro-Optics 2010, San Jose, California, 16 - 21 May 2010
- XLV. **Chip-scale integrated tuning of slow-light in all-optical multi-EIT analogue in photonic crystal**

## **cavities**

Gu T., KOCAMAN S., Yang X., McMillan J. F., Yu M., Kwong D., Wong C. W.

Conference on Lasers and Electro-Optics 2010, San Jose, California, 16 - 21 May 2010

## **XLVI. Time-Domain Demonstrations of Slow-Light in Multi-Coupled Photonic Crystal Cavities**

KOCAMAN S., Yang X., McMillan J. F., Gu T., Yu M., Kwong D., Wong C. W.

Conference on Lasers and Electro-Optics 2010, San-Jose, Costa Rica, 16 - 21 May 2010

## **Supported Projects**

KOCAMAN S., TUBITAK Project, Genişletilmiş Swir Bölgesinde Çalışan Delta Katkılı Nbn Yapısında Kızılötesi Dedektör, 2019 - 2021

Kocaman S., Project Supported by Defense Industry, KIZILÖTESİ DEDEKTÖR TAKIMI (KDT) GELİŞTİRİLMESİ (NAR) PROJESİ KAPSAMINDA ÇİFT RENKLİ MWIR/MWIR HgCdTe KIZILÖTESİ SENSÖR ÜRETİLMESİ PROJESİ, 2018 - 2021

KOCAMAN S., TUBITAK Project, Geniş Bant Aralığında Çalışabilen Çip Üzeri Optik Modülatör Ve Anahtarlama Aygıtları, 2017 - 2021

KOCAMAN S., TUBITAK Project, Yakın Kızılötesi Dalga Boyunda Bütünleşik Devre Üzeri Amorf Dalga Kılavuzu, 2018 - 2020

KOCAMAN S., TUBITAK Project, Faz-Uyumlu (Düşük Faz Kaymalı) Tümlleşik Sayısal Zayıflatıcı Geliştirilmesi, 2015 - 2018

KOCAMAN S., Project Supported by Higher Education Institutions, Elektromanyetik Olarak İndüklenmiş Geçirgenliğin Fotonik Kristal Dalga Kılavuzları ile Optik Benzerinin Optimizasyonu, 2016 - 2017

Kocaman S., Project Supported by Defense Industry, KISA DALGABOYU KIZILÖTESİ SWIR DEDEKTÖRÜ GELİŞTİRİLMESİ KANGAL, 2014 - 2017

KOCAMAN S., Project Supported by Other Private Institutions, KDKS Projesi İçin Yarı İletken Malzeme Büyütülmesi Çalışması, 2016 - 2016

KOCAMAN S., Project Supported by Other Private Institutions, AFSS Projesi İçin Yarı İletken Malzeme Büyütülmesi Çalışması, 2015 - 2016

KOCAMAN S., TUBITAK Project, Kuantum Noktalar ve Fotonik Kristaller Kullanılarak Geliştirilen Entegre Fotonik Sistemler, 2014 - 2016

Kocaman S., TUBITAK Project, Kuantum Noktalar ve Fotonik Kristaller Kullanılarak Geliştirilen Entegre Fotonik Sistemler, 2014 - 2016

## **Metrics**

Publication: 77

Citation (WoS): 378

Citation (Scopus): 498

H-Index (WoS): 10

H-Index (Scopus): 11

## **Awards**

Kocaman S., Outstanding Young Scientists Awards (GEBİP), Tüba Türkiye Bilimler Akademisi, November 2022

Kocaman S., Mustafa Parlar Vakfı Araştırma Teşvik Ödülü, Mustafa Parlar Eğitim Ve Araştırma Vakfı, December 2019

Kocaman S., Nakiboğlu B., Bilim Akademisi Genç Bilim İnsanları Ödül Programı (BAGEP), Bilim Akademisi, April 2019

## **Non Academic Experience**

Citi, New York, ABD, Quantitative Analyst