

Prof. TAYFUN AKIN

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: O-6924-2015

ScopusID: 7004435753

Yoksis Researcher ID: 104090

Education Information

Doctorate, University of Michigan, Electrical Engineering, United States Of America 1989 - 1994

Postgraduate, University of Michigan, Electrical Engineering, United States Of America 1987 - 1989

Undergraduate, Middle East Technical University, Faculty of Engineering, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 1982 - 1987

Research Areas

Electrical and Electronics Engineering, Electronic, Sensing Devices and Transducers, MEMS, Optoelectronic Materials and Devices, Semiconducting Materials and Devices, Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 2004 - Continues

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 1999 - 2004

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Electrical and Electronics Engineering, 1995 - 1999

Academic and Administrative Experience

Manager of Research and Application Center, Middle East Technical University, Presidency Office, 2008 - Continues

Head of Department, Middle East Technical University, Graduate School of Natural and Applied Sciences, Mikro Ve Nanoteknoloji (YI) (Tezli), 2013 - 2017

Courses

DIGITAL ELECTRONICS, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018

Advising Theses

- Akın T., DEVELOPMENT OF PBS COLLOIDAL QUANTUM DOT BASED FPAS FOR SWIR IMAGING, Doctorate, E.DİRİCAN(Student), Continues
- Akın T., DEVELOPMENT OF ULTRA LOW-DRIFT MEMS GYROSCOPE, Doctorate, H.DOĞAN(Student), Continues
- Akın T., Turan R., DEVELOPMENT OF SMALL SIZE UNCOOLED INFRARED MICROBOLOMETER, Postgraduate, B.UTKU(Student), Continues
- Akın T., A LOW-POWER,HIGH-PERFORMANCE ANALOG-TO-DIGITAL CONVERTER INTEGRATED CIRCUIT FOR BIOMEDICAL APPLICATIONS, Doctorate, S.KOÇAK(Student), Continues
- Akın T., DIGITALLY CONTROLLED MEMS GYROSCOPE AND ITS MULTIVARIATE CALIBRATION, Doctorate, F.YEŞİL(Student), Continues
- Akın T., DEVELOPMENT OF SMALL PIXEL PITCH AND HIGH PERFORMANCE UNCOOLED INFRARED DETECTOR ARRAY, Doctorate, S.KESKİN(Student), Continues
- Akın T., HIGH PERFORMANCE READOUT CIRCUIT FOR RESONATOR BASED MEMS ACCELEROMETER USING DIGITAL CONTROL LOOP, Doctorate, M.ALI(Student), Continues
- Akın T., A wafer level vacuum packaging technologyfor MEMS based long-wave infrared sensors, Doctorate, G.DEMİRHAN(Student), 2022
- Akın T., Column parallel incremental zoom adc for uncooled imaging applications, Postgraduate, A.BEYENİR(Student), 2022
- Akın T., HIGH PERFORMANCE MEMS INERTIAL SENSORS, Postgraduate, U.ÇEKMEZ(Student), 2022
- AKIN T., Low-power low-noise highly programmable digital accelerometer readout for high performance MEMS accelerometers, Postgraduate, B.ENGİN(Student), 2022
- AKIN T., High-performance readout circuit for resonator-based MEMS accelerometer using digital control loop, Doctorate, M.ALI(Student), 2022
- Akın T., A NEW APPROACH TO SHUTTERLESS OPERATION OF MICROBOLOMETER BASED INFRARED CAMERAS, Postgraduate, S.ÇAVDAR(Student), 2021
- AKIN T., Development of small size uncooled infrared microbolometer pixel, Postgraduate, B.UTKU(Student), 2021
- Akın T., 125PS LSB COLUMN PARALLEL TIME TO DIGITAL CONVERTER INTEGRATED CIRCUIT FOR LIDAR APPLICATIONS, Postgraduate, O.ÖZPINAR(Student), 2021
- AKIN T., 125PS LSB column parallel time to digital converter integrated circuit for lidar applications, Postgraduate, O.ÖZPINAR(Student), 2021
- Akın T., Demir Ş., PACKAGING OF RF MEMS SWITCHES AND PERFORMANCE IMPROVEMENT, Doctorate, İ.COMART(Student), 2019
- Akın T., REAL-TIME FPGA FIRMWARE FOR VGA RESOLUTION INFRARED CAMERA, Postgraduate, K.ÇEVİK(Student), 2019
- AKIN T., A low power integrated temperature sensor with digital outputsfor on-chip temperature monitoring applications, Postgraduate, Ö.TURAN(Student), 2017
- AKIN T., Advanced circuit architectures for readout electronics of low-cost microbolometer focal plane arrays, Postgraduate, M.HALUK(Student), 2017
- AKIN T., Low-cost microbolometer infrared detectors utilizing cmos resistive layers, Postgraduate, H.ÖZTÜRK(Student), 2017
- AKIN T., A small-format microbolometer imaging sensor with digital video outputs, Postgraduate, C.YALÇIN(Student), 2016
- AKIN T., A low-power analog-to-digital converter integrated circuit for data acquisition applications, Postgraduate, S.KOÇAK(Student), 2016
- AKIN T., TURAN R., Novel metal assisted etching technique for enhanced light management in black crystalline si solar cells, Doctorate, F.ES(Student), 2016
- KALAY Y. E., AKIN T., BONDING MATERIAL DEVELOPMENT AT WAFER LEVEL VACUUM PACKAGING FOR MEMS DEVICES BY TRANSIENT LIQUID PHASE (TLP) METHOD, Postgraduate, E.CAN(Student), 2016
- AKIN T., A readout circuit for resonant mems temperature sensors, Postgraduate, H.ASADI(Student), 2016
- AKIN T., Design and implementation of perforation on high fill factor structures for uncooled infrared sensors,

Postgraduate, R.ÇETİN(Student), 2016

AKIN T., Resonance-based MEMS temperature sensors for temperature compensation of mems capacitive accelerometer, Postgraduate, G.DEMİRHAN(Student), 2016

AKIN T., AZGIN K., Development of an integrated resonant mems temperature sensor, Postgraduate, T.KÖSE(Student), 2016

AKIN T., TURAN R., Light trapping micro and nanostructures fabricated by top down approaches for solar cell applications, Doctorate, H.SERRA(Student), 2016

DEMİR Ş., AKIN T., Design of an x-band 3-bit rf mems constant phase shifter, Postgraduate, A.KUZUBAŞLI(Student), 2016

AKIN T., A high performance closed-loop analog readout circuit for capacitive MEMS accelerometers, Postgraduate, Y.TERZİOĞLU(Student), 2015

AKIN T., High speed LVDS digital input/output interface circuitries for high resolution imaging sensors /, Postgraduate, S.TUNCER(Student), 2015

AKIN T., CMOS readout electronics for mismatched and mode-matched mems gyroscopes, Postgraduate, F.YEŞİL(Student), 2015

AKIN T., ARIKAN M. A. S., Development of new, simple, and robust wafer level hermetic packaging methods for MEMS sensors, Doctorate, M.MERT(Student), 2015

AKIN T., Design and implementation of high fill factor structures on low-cost uncooled infrared sensors, Postgraduate, O.ERTÜRK(Student), 2015

AKIN T., High performance closed-loop analog readout circuit for capacitive MEMS accelerometers, Postgraduate, Y.Terzioğlu(Student), 2015

AKIN T., 5th order sigma delta MEMS accelerometer system with enhanced linearity, Postgraduate, U.AYKUTLU(Student), 2015

AKIN T., A low-power memory CMOS integrated circuit for image sensors, Postgraduate, M.CEM(Student), 2015

AKIN T., CMOS readout electronics for mis-matched and mode-matched MEMS gyroscopes, Postgraduate, F.Yeşil(Student), 2015

AKIN T., A versatile 5th order sigma-delta modulation circuit for MEMS capacitive accelerometer characterization, Postgraduate, T.ASGARLI(Student), 2014

AKIN T., EMİNOĞLU S., A Digitally programmable application specific integrated circuit for drive and data acquisition of imaging sensorsMethod of moments analysis of slotted waveguide antenna arrays, Postgraduate, N.Bayhan(Student), 2014

AKIN T., A Versatile 5th order sigma-delta modulation circuit for MEMS capacitive accelerometer characterization /, Postgraduate, T.Asgarli(Student), 2014

AKIN T., AZGIN K., Compensation methods for quasi-static acceleration sensitivity of MEMS gyroscopes, Postgraduate, H.DOĞAN(Student), 2014

AKIN T., ARIKAN M. A. S., A THREE AXIS CAPACITIVE MEMS ACCELEROMETER ON A MULTI-STACK SUBSTRATE, Doctorate, S.TEZ(Student), 2014

AKIN T., AZGIN K., Correction of temperature and acceleration effects on MEMS gyro output signals /, Postgraduate, M.ALI(Student), 2014

AKIN T., A digitally programmable application specific integrated circuit for drive and data acquisition of imaging sensors, Postgraduate, N.BAYHAN(Student), 2014

AKIN T., Development and characterization of low-cost uncooled infrared sensors for commercial applications, Postgraduate, F.TANKUT(Student), 2013

AKIN T., Camera electronics for low-cost microbolometer type infrared detectors, Postgraduate, C.TÜFEKÇİ(Student), 2013

AKIN T., A low-power capacitive integrated CMOS readout circuitry for high performance MEMS accelerometers, Postgraduate, O.SAMET(Student), 2013

AKIN T., EMİNOĞLU S., Low---cost uncooled infrared imaging sensor using mems and a modified standard cmos process, Postgraduate, M.Ali(Student), 2013

AKIN T., A low-cost uncooled infrared imaging sensor using MEMS and a modified standard CMOS process, Postgraduate, M.ALI(Student), 2013

DURUCAN C., AKIN T., A microbolometer detector based on a sol-gel technology, Doctorate, Ö.DERVİŞOĞLU(Student),

2013

- AKIN T., TURAN R., A Three Axis Capacitive MEMS Accelerometer On A Single Substrate, Doctorate, A.AYDEMİR(Student), 2013
- AKIN T., TURAN R., Electrical, optical, and noise characterizations of mwir type-ii inas/gasb superlattice single pixel detectors, Postgraduate, K.KUTLUER(Student), 2012
- AKIN T., A fully-differential bulk-micromachined MEMS accelerometer with interdigitated fingers, Postgraduate, O.AYDIN(Student), 2012
- AKIN T., A successive approximation register analog-to-digital converter for low-cost microbolometers, Postgraduate, Y.UYGAR(Student), 2012
- AKIN T., A high performance automatic mode-matched MEMS gyroscope, Postgraduate, S.SÖNMEZOĞLU(Student), 2012
- AKIN T., Camera electronics and image enhancement software for infrared detector arrays, Postgraduate, A.KÜÇÜKKÖMÜRLER(Student), 2012
- AKIN T., A dual-band uncooled infrared microbolometer detector with a tunable micro-mirror, Postgraduate, S.KESKİN(Student), 2012
- DURUCAN C., AKIN T., Vanadium oxide (VOx) thin films elaborated by sol-gel method for microbolometer applications, Postgraduate, K.KARSLI(Student), 2012
- AKIN T., An integrated imaging sensor for rare cell detection applications, Postgraduate, Ç.ALTINER(Student), 2012
- AKIN T., A low-cost uncooled infrared detector array and its camera electronics, Postgraduate, D.AKÇÖREN(Student), 2011
- AKIN T., TURAN R., Development of high performance uncooled infrared detector materials, Postgraduate, B.KEBAPÇI(Student), 2011
- AKIN T., ARIKAN M. A. S., Wafer level vacuum packaging of MEMS sensors and resonators, Postgraduate, M.MERT(Student), 2011
- AKIN T., CMOS integrated sensor readout circuitry for DNA detection applications, Postgraduate, J.MUSAYEV(Student), 2011
- AKIN T., Development of high fill factor and high performance uncooled infrared detector pixels, Postgraduate, Ş.ESRA(Student), 2011
- AKIN T., Control electronics for MEMS gyroscopes and its implementation in a CMOS technology, Postgraduate, B.EMİNOĞLU(Student), 2011
- KÜLAH H., AKIN T., Capacitive CMOS readouts for high performance MEMS accelerometers, Postgraduate, U.SÖNMEZ(Student), 2011
- AKIN T., TURAN R., Development of high performance active materials for microbolometers, Postgraduate, N.EROĞLU(Student), 2011
- AKIN T., A tactical grade MEMS accelerometer, Doctorate, İ.ENDER(Student), 2010
- AKIN T., Quadrature error compensation and its effects on the performance of fully decoupled mems gyroscopes, Postgraduate, E.TATAR(Student), 2010
- DEMİR Ş., AKIN T., Reliability improvement of RF MEMS devices based on lifetime measurements, Postgraduate, O.DOĞAN(Student), 2010
- AKIN T., Development of High Thermal Performance Uncooled Infrared Detector Pixels with Enhanced Resistor Structures, Postgraduate, Ş.UFUK(Student), 2010
- AKIN T., A monolithic readout circuit for large format uncooled infrared detector focal plane arrays, Doctorate, M.TEPEGÖZ(Student), 2010
- AKIN T., TURAN R., Development and Characterization of High TCR Material For Surface Micromachined Microblometers, Postgraduate, E.CANGA(Student), 2010
- DEMİR Ş., AKIN T., Development of MEMs technology based microwave and millimeter-wave components, Postgraduate, Ç.ÇETİNTEPE(Student), 2010
- AYDIN ÇİVİ H. Ö., AKIN T., Dual frequency reconfigurable reflectarray antenna of split ring elements with RF MEMS switches, Postgraduate, C.GÜÇLÜ(Student), 2010
- AKIN T., A tactical grade MEMS accelerometer, Doctorate, İ.Ender(Student), 2010
- DEMİR Ş., AKIN T., Zero-level packaging of microwave and millimeterwave mems components, Postgraduate, İ.COMART(Student), 2010

DEMİR Ş., AKIN T., NOVEL IMPEDANCE TUNER, PHASE SHIFTER, AND VECTOR MODULATORS USING RF MEMS TECHNOLOGY, Doctorate, M.ÜNLÜ(Student), 2009

AKIN T., CMOS readout electronics for microbolometer type infrared detector arrays, Postgraduate, A.TOPRAK(Student), 2009

AKIN T., ADVANCED CMOS READOUT ELECTRONICS FOR UNCOOLED INFRARED DETECTOR ARRAYS, Postgraduate, A.OĞUZ(Student), 2009

AKIN T., High performance readout and control electronics for MEMS gyroscopes, Postgraduate, E.ŞAHİN(Student), 2009

AKIN T., A Low Cost 128x128 Uncooled Infrared Detector Array in a Standard SOI CMOS Technology, Postgraduate, E.İNCETÜRKMEN(Student), 2008

AKIN T., A wide-bandwidth high-sensitivity MEMS gyroscope, Postgraduate, K.ŞAHİN(Student), 2008

AKIN T., Development of High Fill Factor Uncooled Infrared Detector Pixels, Postgraduate, F.ÇİVİTÇİ(Student), 2008

KÜLAH H., AKIN T., Capacitive cmos readout circuits for high performance MEMS accelerometers, Postgraduate, R.KEPENEK(Student), 2008

DEMİR Ş., AKIN T., Design and fabrication of RF MEMS switches and instrumentation for performance evaluation, Postgraduate, H.İBRAHİM(Student), 2007

AKIN T., An uncooled infrared microbolometer detector array using surface micromachined mems technology, Doctorate, M.YUSUF(Student), 2007

AKIN T., AYDIN ÇİVİ H. Ö., Beam switching reflectarray with RF MEMS technology, Postgraduate, Ö.BAYRAKTAR(Student), 2007

AKIN T., TURAN R., Deep-trench Rie optimization for high performance MEMS microsensors, Postgraduate, A.AYDEMİR(Student), 2007

AKIN T., High performance MEMS gyroscopes, Postgraduate, K.AZGIN(Student), 2007

AKIN T., Advanced readout and control electronics for MEMS gyroscopes, Postgraduate, Y.TEMİZ(Student), 2007

AKIN T., AYDIN ÇİVİ H. Ö., A monolithic phased array using RF MEMS technology, Doctorate, K.TOPALLI(Student), 2007

AKIN T., Development of electrochemical etch-stop techniques for integrated MEMS sensors, Postgraduate, G.CEREN(Student), 2006

AKIN T., High performance CMOS capacitive interface circuits for MEMS gyroscopes, Postgraduate, K.MİTHAT(Student), 2006

AKIN T., High performance readout electronics for uncooled infrared detector arrays, Postgraduate, Ö.ÖZGÜR(Student), 2006

DEMİR Ş., AKIN T., Design and implementation of microwave lumped components and system integration using MEMS technology, Postgraduate, E.UFUK(Student), 2006

AKIN T., KOÇ S. S., A novel modeling methodology and performance improvement technique for dmtl phase shifters, Postgraduate, İ.İSTANBULLUOĞLU(Student), 2006

AKIN T., MEMS gyroscopes for tactical-grade inertial measurement applications, Doctorate, S.EMRE(Student), 2005

AKIN T., Development of test structures and methods for characterization of mems materials, Postgraduate, E.YILDIRIM(Student), 2005

AKIN T., MemS gyroscopes for tactical-grade inertial measurement applications, Doctorate, S.Emre(Student), 2005

AKIN T., MEMS accelerometers and gyroscopes for inertial measurement units, Postgraduate, M.AKİF(Student), 2004

DEMİR Ş., AKIN T., An adjustable impedance matching network using RF MEMS technology, Postgraduate, M.ÜNLÜ(Student), 2003

AKIN T., A 64x64 CMOS integrated readout circuit for infrared photodetector focal plane arrays, Postgraduate, M.Tepeöz(Student), 2003

AKIN T., Humidity sensors using MEMS and standard CMOS technologies, Postgraduate, B.OKCAN(Student), 2003

AKIN T., Uncooled infrared focal plane arrays with integrated readout circuitry using MEMS and standard CMOS technologies, Doctorate, S.EMİNOĞLU(Student), 2003

AKIN T., A frost sensor system using MEMS technology, Postgraduate, Z.SALMAN(Student), 2003

AKIN T., Surface micromachined capacitive accelerometers using MEMS technology, Postgraduate, R.FIRAT(Student), 2003

AKIN T., A 64X64 CMOS integrated readout circuit for infraret photodetector focal plane arrays, Postgraduate,

M.TEPEGÖZ(Student), 2003

AKIN T., A high fill factor CMOS uncooled infrared microbolometer detector., Postgraduate, M.Yusuf(Student), 2002

AKIN T., A High fill factor CMOS uncooled infrared microbolometer detector, Postgraduate, M.YUSUF(Student), 2002

AKIN T., A CMOS compatible uncooled infrared detector focal plane array for night vision applications using MEMS technology, Doctorate, D.SABUNCUOĞLU(Student), 2002

AKIN T., A Piezoresistive pressure and temperature sensor cluster, Postgraduate, Ö.ZORLU(Student), 2002

AKIN T., A silicon micromachined frost sensor for industrial applications, Postgraduate, S.MUTAKA(Student), 2001

AKIN T., Silicon surface micromachined gyroscopes using mems technology, Postgraduate, S.EMRE(Student), 2000

AKIN T., VLSI implementation of low-power current mode CMOS algorithmic analog-to-digital converters, Postgraduate, A.TEZEL(Student), 1999

AKIN T., VLSI implementation of low-power current-mode,cmos algorithmic analog-to-digital convertes, Postgraduate, A.Tezel(Student), 1999

Akın T., Silisyum mikroişleme yöntemi ile üretilen endüstriyel ve biomedikal uygulamalar için kapasite basınç sensörleri, Postgraduate, O.ŞEVKET(Student), 1998

Akın T., Infrared thermopile structures using any standart CMOS integrated circuit process, Postgraduate, Z.OLGUN(Student), 1998

Akın T., Analog-digital mixed-signal VLSI modules for audio signal processing applications, Postgraduate, S.EMİNOĞLU(Student), 1998

Akın T., A CMOS Integrated PtSi Schottky-Barrier Infrared Detector for Night Vision Applications, Postgraduate, H.KÜLAH(Student), 1998

AKIN T., Infrared thermopile structures using any standard cmos integrated circuit process, Postgraduate, Z.Olgun(Student), 1998

AKIN T., Analog-digital mixed-signal, VLSI modules for audio band signal processing applications, Postgraduate, S.Eminoğlu(Student), 1998

AKIN T., Infrared thermopile structures using any standart CMOS integrated circuit process, Postgraduate, Z.OLGUN(Student), 1998

AKIN T., Analog-digital mixed-signal VLSI modules for audio signal processing applications, Postgraduate, S.EMİNOĞLU(Student), 1998

AKIN T., A CMOS integrated PtSi schottky-barrier infrared dedector for night applications, Postgraduate, H.KÜLAH(Student), 1998

AKIN T., Silicon micromachined capacitive pressure sensors for industrial and biomedical applications, Postgraduate, O.Şevket(Student), 1998

AKIN T., A CMOS integrated PtSi schottky-barrier infrared detector for night vision applications., Postgraduate, H.Külah(Student), 1998

Jury Memberships

Appointment to Academic Staff - Associate Professorship, Appointment to Academic Staff - Associate Professorship, İzmir Yüksek Teknoloji Enstitüsü, December, 2022

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Abdullah Gül Üniversitesi, July, 2020

Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Abdullah Gül Üniversitesi, February, 2019

Published journal articles indexed by SCI, SSCI, and AHCI

1. Wafer Level Vacuum Packaging of MEMS-Based Uncooled Infrared Sensors

Demirhan Aydin G., Akar O. S., AKIN T.

Micromachines, vol.15, no.8, 2024 (SCI-Expanded)

- II. **Energy-efficient switching method using input-swapping for high-resolution successive approximation register analog-to-digital converters**
Kocak S., AKIN T.
Electronics Letters, vol.60, no.9, 2024 (SCI-Expanded)
- III. **Tuning structural, electrical, and THz optical properties of VxOy films with W-doping**
Atik B., Dirican E., Demirors O., Altan H., Esenturk O., Yildirim M., Akin T.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.903, 2022 (SCI-Expanded)
- IV. **An all-silicon process platform for wafer-level vacuum packaged MEMS devices**
Torunbalci M. M., Gavcar H. D., Yesil F., Alper S. E., AKIN T.
IEEE Sensors Journal, vol.21, no.13, pp.13958-13964, 2021 (SCI-Expanded)
- V. **Interband optical absorption obtained by pseudopotential method for type-II InAs/GaSb SL photodetectors**
Akel K., HOŞTUT M., AKIN T., Ergun Y.
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.54, no.19, 2021 (SCI-Expanded)
- VI. **Wafer-Level Low-Temperature Solid-Liquid Inter-Diffusion Bonding With Thin Au-Sn Layers for MEMS Encapsulation**
Temel O., KALAY Y. E., AKIN T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.30, no.1, pp.64-71, 2021 (SCI-Expanded)
- VII. **Realization of Single Layer Microbolometer Detector Pixel Using ZnO Material**
Tanrikulu M. Y., Yildizak C., Okyay A. K., Akar O., Sarac A., AKIN T.
IEEE SENSORS JOURNAL, vol.20, no.17, pp.9677-9684, 2020 (SCI-Expanded)
- VIII. **Development and Modeling of a Wafer-Level BCB Packaging Method for Capacitive RF MEMS Switches**
Comart I., Cetintepe C., Sagiroglu E., DEMİR Ş., AKIN T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.28, no.4, pp.724-731, 2019 (SCI-Expanded)
- IX. **The detailed analysis of wavefunction overlaps for InAs/AlSb/GaSb based N-structure type-II SL pin photodetectors**
Hostut M., Tansel T., Kilic A., Akin T., Ergun Y.
PHYSICA SCRIPTA, vol.94, no.7, 2019 (SCI-Expanded)
- X. **Numerical and Experimental Investigation into LWIR Transmission Performance of Complementary Silicon Subwavelength Antireflection Grating (SWARG) Structures**
Cetin R., AKIN T.
SCIENTIFIC REPORTS, vol.9, 2019 (SCI-Expanded)
- XI. **Microwave Engineering Expertise in Turkey**
Yarman B. S., Palamutcuogullari O., Kaya I., Kizilbey O., Aksen A., Akin T., Ozkan Z. L., Oksar I., Nesimoglu T.
IEEE MICROWAVE MAGAZINE, vol.19, no.3, pp.135-140, 2018 (SCI-Expanded)
- XII. **A folded leg Ka-band RF MEMS shunt switch with amorphous silicon (a-Si) sacrificial layer**
Demirel K., Yazgan E., Demir Ş., Akin T.
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS, vol.23, pp.1191-1200, 2017 (SCI-Expanded)
- XIII. **A new design and a fabrication approach to realize a high performance three axes capacitive MEMS accelerometer**
Aydemir A., Terzioglu Y., AKIN T.
SENSORS AND ACTUATORS A-PHYSICAL, vol.244, pp.324-333, 2016 (SCI-Expanded)
- XIV. **Design and fabrication of a high performance resonant MEMS temperature sensor**
Kose T., AZGIN K., Akin T.
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.26, no.4, 2016 (SCI-Expanded)
- XV. **A New Temperature-Tolerant RF MEMS Switch Structure Design and Fabrication for Ka-Band Applications**
Demirel K., Yazgan E., Demir Ş., Akin T.

- JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.25, pp.60-68, 2016 (SCI-Expanded)
- XVI. **A method for wafer level hermetic packaging of SOI-MEMS devices with embedded vertical feedthroughs using advanced MEMS process**
Torunbalci M. M., Alper S. E., Akin T.
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.25, 2015 (SCI-Expanded)
- XVII. **A Bulk-Micromachined Three-Axis Capacitive MEMS Accelerometer on a Single Die**
TEZ S., Aykutlu U., Torunbalci M. M., AKIN T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.24, no.5, pp.1264-1274, 2015 (SCI-Expanded)
- XVIII. **Cantilever type radio frequency microelectromechanical systems shunt capacitive switch design and fabrication**
Demirel K., Yazgan E., Demir Ş., Akin T.
JOURNAL OF MICRO-NANOLITHOGRAPHY MEMS AND MOEMS, vol.14, 2015 (SCI-Expanded)
- XIX. **Advanced MEMS Process for Wafer Level Hermetic Encapsulation of MEMS Devices Using SOI Cap Wafers With Vertical Feedthroughs**
Torunbalci M. M., Alper S. E., Akin T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.24, pp.556-564, 2015 (SCI-Expanded)
- XX. **Wafer level hermetic sealing of MEMS devices with vertical feedthroughs using anodic bonding**
Torunbalci M. M., Alper S. E., AKIN T.
SENSORS AND ACTUATORS A-PHYSICAL, vol.224, pp.169-176, 2015 (SCI-Expanded)
- XXI. **Atomic-layer-deposited zinc oxide as tunable uncooled infrared microbolometer material**
Battal E., Bolat S., TANRIKULU M. Y., OKYAY A. K., AKIN T.
PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE, vol.211, no.11, pp.2475-2482, 2014 (SCI-Expanded)
- XXII. **A Sigma Delta micro accelerometer with 6 μ g/ $\sqrt{\text{Hz}}$ resolution and 130 dB dynamic range**
Sonmez U., Kulah H., Akin T.
ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING, vol.81, no.2, pp.471-485, 2014 (SCI-Expanded)
- XXIII. **A fabrication process based on structural layer formation using Au-Au thermocompression bonding for RF MEMS capacitive switches and their performance**
Cetintepe C., Topalli E. S., Demir Ş., Civi O. A., Akin T.
INTERNATIONAL JOURNAL OF MICROWAVE AND WIRELESS TECHNOLOGIES, vol.6, pp.473-480, 2014 (SCI-Expanded)
- XXIV. **Capturing and detection of MCF-7 breast cancer cells with a CMOS image sensor**
Musayev J., Altiner C., Adiguzel Y., KÜLAH H., Eminoglu S., AKIN T.
SENSORS AND ACTUATORS A-PHYSICAL, vol.215, pp.105-114, 2014 (SCI-Expanded)
- XXV. **Microwave Characterization of a Wafer-Level Packaging Approach for RF MEMS Devices Using Glass Frit Bonding**
Comart I., Topalli K., DEMİR Ş., AKIN T.
IEEE SENSORS JOURNAL, vol.14, no.6, pp.2006-2011, 2014 (SCI-Expanded)
- XXVI. **Label-Free DNA Detection Using a Charge Sensitive CMOS Microarray Sensor Chip**
Musayev J., Adiguzel Y., KÜLAH H., Eminoglu S., AKIN T.
IEEE SENSORS JOURNAL, vol.14, no.5, pp.1608-1616, 2014 (SCI-Expanded)
- XXVII. **An Automatically Mode-Matched MEMS Gyroscope With Wide and Tunable Bandwidth**
Sonmezoglu S., Alper S. E., Akin T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.23, pp.284-297, 2014 (SCI-Expanded)
- XXVIII. **A Bulk-Micromachined Fully Differential MEMS Accelerometer With Split Interdigitated Fingers**
Aydin O., Akin T.
IEEE SENSORS JOURNAL, vol.13, pp.2914-2921, 2013 (SCI-Expanded)
- XXIX. **A 15-40-GHz Frequency Reconfigurable RF MEMS Phase Shifter**
Ünlü M., Demir Ş., Akin T.
IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol.61, pp.2865-2877, 2013 (SCI-Expanded)
- XXX. **Ultrahigh-Dynamic-Range Resonant MEMS Load Cells for Micromechanical Test Frames**

- Azgin K., Akin T., Valdevit L.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.21, no.6, pp.1519-1529, 2012 (SCI-Expanded)
- XXXI. **Triple stub circuit topology as simultaneous insertion phase, amplitude and impedance control circuit for phased array applications**
Unlu M., Demir Ş., Akin T.
IET MICROWAVES ANTENNAS & PROPAGATION, vol.6, pp.1399-1406, 2012 (SCI-Expanded)
- XXXII. **Prevention of sidewall redeposition of etched byproducts in the dry Au etch process**
Aydemir A., Akin T.
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.22, no.7, 2012 (SCI-Expanded)
- XXXIII. **Quadrature-Error Compensation and Corresponding Effects on the Performance of Fully Decoupled MEMS Gyroscopes**
Tatar E., Alper S. E., Akin T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.21, pp.656-667, 2012 (SCI-Expanded)
- XXXIV. **Beam Switching Reflectarray Monolithically Integrated With RF MEMS Switches**
Bayraktar O., Civi O. A., Akin T.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.60, pp.854-862, 2012 (SCI-Expanded)
- XXXV. **Effect of pattern size and geometry on the use of Cassie-Baxter equation for superhydrophobic surfaces**
Cansoy C. E., Erbil H. Y., Akar O., AKIN T.
COLLOIDS AND SURFACES A-PHYSCOCHEMICAL AND ENGINEERING ASPECTS, vol.386, pp.116-124, 2011 (SCI-Expanded)
- XXXVI. **MEMS resonant load cells for micro-mechanical test frames: feasibility study and optimal design**
Torrents A., Azgin K., Godfrey S. W., Topalli E. S., AKIN T., Valdevit L.
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.20, no.12, 2010 (SCI-Expanded)
- XXXVII. **Plasma-activated direct bonding of diamond-on-insulator wafers to thermal oxide grown silicon wafers**
Bayram B., Akar O., Akin T.
DIAMOND AND RELATED MATERIALS, vol.19, pp.1431-1435, 2010 (SCI-Expanded)
- XXXVIII. **A high performance Sigma-Delta readout circuitry for mu g resolution microaccelerometers**
Ocak I. E., Kepenek R., KÜLAH H., AKIN T.
ANALOG INTEGRATED CIRCUITS AND SIGNAL PROCESSING, vol.64, no.2, pp.137-145, 2010 (SCI-Expanded)
- XXXIX. **Hybrid connection of RF MEMS and SMT components in an impedance tuner**
Unlu M., Topalli K., Atasoy H. I., Demir Ş., Civi O. A., Akin T.
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.64, pp.748-756, 2010 (SCI-Expanded)
- XL. **Tunable dual-frequency RF MEMS rectangular slot ring antenna**
Topalli K., Erdil E., Civi O. A., Demir Ş., Koc S., Akin T.
SENSORS AND ACTUATORS A-PHYSICAL, vol.156, pp.373-380, 2009 (SCI-Expanded)
- XLI. **A tunable multi-band metamaterial design using micro-split SRR structures**
EKMEKÇİ E., TOPALLI K., AKIN T., Turhan-Sayan G.
OPTICS EXPRESS, vol.17, no.18, pp.16046-16058, 2009 (SCI-Expanded)
- XLII. **A wide-bandwidth and high-sensitivity robust microgyroscope**
Sahin K., Sahin E., Alper S. E., Akin T.
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.19, no.7, 2009 (SCI-Expanded)
- XLIII. **Low-Loss Ku-Band Artificial Transmission Line With MEMS Tuning Capability**
Perruisseau-Carrier J., Topalli K., AKIN T.
IEEE MICROWAVE AND WIRELESS COMPONENTS LETTERS, vol.19, no.6, pp.377-379, 2009 (SCI-Expanded)
- XLIV. **Pirani Vacuum Gauges Using Silicon-on-Glass and Dissolved-Wafer Processes for the Characterization of MEMS Vacuum Packaging**
Topalli E. S., Topalli K., Alper S. E., Serin T., Akin T.
IEEE SENSORS JOURNAL, vol.9, pp.263-270, 2009 (SCI-Expanded)

- XLV. EMPIRICAL FORMULATION OF BRIDGE INDUCTANCE IN INDUCTIVELY TUNED RF MEMS SHUNT SWITCHES**
Topalli K., ÜNLÜ M., Atasoy H. İ., AYDIN ÇİVİ H. Ö., DEMİR Ş., AKIN T.
PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER, vol.97, pp.343-356, 2009 (SCI-Expanded)
- XLVI. Strain-controlled bulge test**
Alaca B. E., Toga K. B., Akar O., AKIN T.
JOURNAL OF MATERIALS RESEARCH, vol.23, no.12, pp.3295-3302, 2008 (SCI-Expanded)
- XLVII. A Compact Angular Rate Sensor System Using a Fully Decoupled Silicon-on-Glass MEMS Gyroscope**
Alper S. E., Temiz Y., Akin T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.17, pp.1418-1429, 2008 (SCI-Expanded)
- XLVIII. A monolithic phased array using 3-bit distributed RF MEMS phase shifters**
Topalli K., Civi O. A., Demir Ş., Koc S., Akin T.
IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol.56, pp.270-277, 2008 (SCI-Expanded)
- XLIX. A low-cost 128x128 uncooled infrared detector array in CMOS process**
Eminoglu S., Tanrikulu M. Y., AKIN T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.17, no.1, pp.20-30, 2008 (SCI-Expanded)
- L. A low-power robust humidity sensor in a standard CMOS process**
Okcan B., Akin T.
IEEE TRANSACTIONS ON ELECTRON DEVICES, vol.54, pp.3071-3078, 2007 (SCI-Expanded)
- LI. Ultrathick and high-aspect-ratio nickel microgyroscope using EFAB multilayer additive electroforming**
Alper S. E., Ocak I. E., Akin T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.16, no.5, pp.1025-1035, 2007 (SCI-Expanded)
- LII. Frequency tunable microstrip patch antenna using RF MEMS technology**
Erdil E., Topalli K., Unlu M., Civi O. A., Akin T.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.55, pp.1193-1196, 2007 (SCI-Expanded)
- LIII. A high-performance silicon-on-insulator MEMS gyroscope operating at atmospheric pressure**
Alper S. E., Azgin K., Akin T.
SENSORS AND ACTUATORS A-PHYSICAL, vol.135, pp.34-42, 2007 (SCI-Expanded)
- LIV. A low-cost rate-grade nickel microgyroscope**
Alper S. E., Silay K. M., Akin T.
SENSORS AND ACTUATORS A-PHYSICAL, vol.132, pp.171-181, 2006 (SCI-Expanded)
- LV. New approach for modelling distributed MEMS transmission lines**
Topalli K., Unlu M., Demir Ş., Civi O., Koc S., Akin T.
IEE PROCEEDINGS-MICROWAVES ANTENNAS AND PROPAGATION, vol.153, no.2, pp.152-162, 2006 (SCI-Expanded)
- LVI. A single-crystal silicon symmetrical and decoupled MEMS gyroscope on an insulating substrate**
Alper S. E., Akin T.
JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol.14, pp.707-717, 2005 (SCI-Expanded)
- LVII. Symmetrical and decoupled nickel microgyroscope on insulating substrate**
Alper S., Akin T.
SENSORS AND ACTUATORS A-PHYSICAL, vol.115, pp.336-350, 2004 (SCI-Expanded)
- LVIII. Low-cost uncooled infrared detectors in CMOS process**
Eminoglu S., Tezcan D., Tanrikulu M., Akin T.
SENSORS AND ACTUATORS A-PHYSICAL, vol.109, pp.102-113, 2003 (SCI-Expanded)
- LIX. A current mirroring integration based readout circuit for high performance infrared FPA applications**
Kulah H., Akin T.
IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS II-ANALOG AND DIGITAL SIGNAL PROCESSING, vol.50, no.4, pp.181-186, 2003 (SCI-Expanded)
- LX. A low-cost uncooled infrared microbolometer detector in standard CMOS technology**

- Tezcan D., Eminoglu S., Akin T.
IEEE TRANSACTIONS ON ELECTRON DEVICES, vol.50, no.2, pp.494-502, 2003 (SCI-Expanded)
- LXI. **A wireless batch sealed absolute capacitive pressure sensor**
Akar O., Akin T., Najafi K.
Sensors and Actuators, A: Physical, vol.95, pp.29-38, 2001 (SCI-Expanded)
- LXII. **A modular micromachined high-density connector system for biomedical applications**
Akin T., Ziaie B., Nikles S., Najafi K.
IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, vol.46, no.4, pp.471-480, 1999 (SCI-Expanded)
- LXIII. **An integrated thermopile structure with high responsivity using any standard CMOS process**
Akin T., Olgun Z., Akar O., Klah H.
Sensors and Actuators, A: Physical, vol.66, pp.218-224, 1998 (SCI-Expanded)
- LXIV. **A wireless implantable multichannel digital neural recording system for a micromachined sieve electrode**
Akin T., Najafi K., Bradley R.
IEEE JOURNAL OF SOLID-STATE CIRCUITS, vol.33, no.1, pp.109-118, 1998 (SCI-Expanded)
- LXV. **Long term chronic recordings from peripheral sensory fibers using a sieve electrode array**
Bradley R., Cao X., Akin T., Najafi K.
JOURNAL OF NEUROSCIENCE METHODS, vol.73, no.2, pp.177-186, 1997 (SCI-Expanded)
- LXVI. **Chronic recordings from fibers of rat glossopharyngeal nerve regenerated through a micromachined sieve electrode array**
Bradley R., Akin T., Gurkan S., Cao X., Najafi K.
CHEMICAL SENSES, vol.20, no.6, pp.29, 1995 (SCI-Expanded)
- LXVII. **A MICROMACHINED SILICON SIEVE ELECTRODE FOR NERVE REGENERATION APPLICATIONS**
AKIN T., NAJAFI K., SMOKE R., BRADLEY R.
IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, vol.41, no.4, pp.305-313, 1994 (SCI-Expanded)
- LXVIII. **Functional regeneration of glossopharyngeal nerve through micromachined sieve electrode arrays**
Bradley R. M., Smoke R. H., Akin T., Najafi K.
Brain Research, vol.594, pp.84-90, 1992 (SCI-Expanded)

Articles Published in Other Journals

- I. **Resonance-Based Temperature Sensors using a Wafer Level Vacuum Packaged SOI MEMS Process**
Aydın G. D., Akin T.
Advanced Materials Letters, vol.11, no.1, 2020 (Peer-Reviewed Journal)
- II. **MEMS Malzeme Karakterizasyonu için Btnlesik bir Elektrostatik Mikro Bklme Test Yapısı Tasarımı ve Gereklestirilmesi**
YILDIRIM E., AKIN T., ARIKAN M. A. S.
Cankaya University Journal of Science and Engineering, vol.9, pp.9-23, 2012 (Peer-Reviewed Journal)
- III. **CMOS Elektronik Devreli PtSi Schottky Bariyer Kızıltesi Gece Grş Dedektr**
KLAH H., AKIN T.
Kaynak Elektrik Dergisi, pp.103-110, 1997 (Non Peer-Reviewed Journal)

Books & Book Chapters

- I. **CMOS-based Thermal Sensors**
Akin T.
in: Advanced Micro & Nanosystems Volume 2: CMOS-MEMS, H. Baltes, O. Brand, G.K. Fedder, C. Hierold, J. Kornivk, O. Tabata, Editor, Wiley-VCH Verlag Weinheim GmbH, Berlin, pp.479-512, 2004

Refereed Congress / Symposium Publications in Proceedings

- I. **Optimization of a microbolometer pixel for operation in the sub-1 THz region**
Demirörs O., Atik B., Dirican E., ALTAN H., ESENTÜRK O., Yıldırlm M., AKIN T.
Terahertz Emitters, Receivers, and Applications XII 2021, California, United States Of America, 1 - 05 August 2021, vol.11827
- II. **Investigation of doped and undoped VOxfilms for terahertz microbolometer applications**
Atik B., Dirican E., Demirörs O., ALTAN H., ESENTÜRK O., Yıldırlm M., AKIN T.
Terahertz Emitters, Receivers, and Applications XII 2021, California, United States Of America, 1 - 05 August 2021, vol.11827
- III. **Low-Cost LWIR-Band CMOS Infrared (CIR) Microbolometers for High Volume Applications**
Akn T.
33rd IEEE International Conference on Micro Electro Mechanical Systems, MEMS 2020, Vancouver, Canada, 18 - 22 January 2020, pp.147-152
- IV. **SELF-PACKAGED THREE AXIS CAPACITIVE MEMS ACCELEROMETER**
Aydemir A., Akin T.
33rd IEEE International Conference on Micro Electro Mechanical Systems (MEMS), Vancouver, Canada, 18 - 22 January 2020, pp.777-780
- V. **A 160×120 LWIR-band CMOS infrared (CIR) microbolometer**
Tankut F., Cologlu M. H., Ozturk H., Cilbir G., Akar O. S., Akin T.
Infrared Technology and Applications XLV 2019, Maryland, United States Of America, 14 - 18 April 2019, vol.11002
- VI. **DESIGN, ANALYSIS AND IMPLEMENTATION OF QUARTER-WAVE ABSORBER STRUCTURE FOR UNCOOLED INFRARED DETECTORS WITH HIGH FILL FACTOR**
Cetin R., Erturk O., AKIN T.
43rd International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz), Nagoya, Japan, 9 - 14 September 2018
- VII. **Single layer microbolometer detector pixel using ZnO material**
TANRIKULU M. Y., Yildizak C., Okyay A. K., Akar O., Sarac A., AKIN T.
Conference on Infrared Technology and Applications XLIV, Florida, United States Of America, 16 - 19 April 2018, vol.10624
- VIII. **DESIGN AND IMPLEMENTATION OF HIGH FILL-FACTOR STRUCTURES FOR LOW-COST CMOS MICROBOLOMETERS**
Erturk O., Akin T.
31st IEEE International Conference on Micro Electro Mechanical Systems (MEMS), Belfast, United Kingdom, 21 - 25 January 2018, pp.692-695
- IX. **An Advanced Presence Detection System Using the CMOS Infrared (CIR) Technology**
Arslan T., Cilbir G., Tepegoz M., Akin T.
Conference on Infrared Technology and Applications XLIII, California, United States Of America, 9 - 13 April 2017, vol.10177
- X. **A 1024x768-12 mu m digital ROIC for uncooled microbolometer FPAs (Conference Presentation)**
Eminoglu S.
Conference on Infrared Technology and Applications XLIII, California, United States Of America, 9 - 13 April 2017, vol.10177
- XI. **An 80x80 Microbolometer Type Thermal Imaging Sensor using the LWIR-Band CMOS Infrared (CIR) Technology**
Tankut F., Cologlu M. H., Askar H., Ozturk H., Dumanli H. K., Oruc F., Tilkioglu B., Ugur B., Akar O. S., Tepegoz M., et al.
Conference on Infrared Technology and Applications XLIII, California, United States Of America, 9 - 13 April 2017, vol.10177
- XII. **A Novel Method for Fabricating MEMS Three-Axis Accelerometers using Low Temperature Au-Sn Eutectic Bonding**
Tez S., Torunbalci M. M., Akn T.

15th IEEE Sensors Conference, Florida, United States Of America, 30 October - 03 November 2016

- XIII. **A single-mass self-resonating closed-loop capacitive MEMS accelerometer**
Kose T., Terzioglu Y., Azgin K., Akin T.
15th IEEE Sensors Conference, SENSORS 2016, Florida, United States Of America, 30 October - 02 November 2016
- XIV. **A High Throughput Lab-On-A-Chip System for Label Free Quantification of Breast Cancer Cells under Continuous Flow**
ASLAN M. Y., YALÇIN Y., Ozgur E., GÜNDÜZ U., Eminoglu S., KÜLAH H., AKIN T.
26th Anniversary World Congress on Biosensors (Biosensors), Gothenburg, Sweden, 25 - 27 May 2016, vol.27, pp.59-61
- XV. **Micro and Nano Hole Texturing Single Crystalline Silicon Wafer for Solar Cell Applications Effects of Hole Diameter and Distribution**
ALTINOLUK H. S., ÇİFTPINAR E. H., DEMİRCİOĞLU O., BAYTEMİR G., ES F., AKAR O., AYDEMİR A., SARAC A., AKIN T., TURAN R.
MRS Spring 2016, 28 March - 01 April 2016
- XVI. **TEMPERATURE COMPENSATION OF A CAPACITIVE MEMS ACCELEROMETER BY USING A MEMS OSCILLATOR**
Kose T., Azgin K., Akin T.
3rd IEEE International Symposium on Inertial Sensors and Systems, California, United States Of America, 22 - 25 February 2016, pp.33-36
- XVII. **Wafer Level Au Sn TLP Bonding from Eutectic Composition**
YILMAZ S., DEMİR E. C., Temel O., AKIN T., KALAY Y. E.
TMS 2016, United States Of America, 14 - 18 February 2016
- XVIII. **A 640x512-20 mu m Dual-Polarity ROIC for MWIR and LWIR Hybrid FPAs**
Eminoglu S., Incedere O. S., Bayhan N., Isikhan M., Soyer S. T., Ustundag C. M. B., Kocak S., Turan O., Eksi U., Akin T.
42 Conference on Infrared Technology and Applications XLII, Massachusetts, United States Of America, 18 - 21 April 2016, vol.9819
- XIX. **Light trapping by micro and nano-hole texturing of single-crystalline silicon solar cells**
ALTINOLUK S. H., ÇİFTPINAR H. E., DEMİRCİOĞLU O., ES F., BAYTEMİR G., AKAR O., AYDEMİR A., SARAC A., AKIN T., TURAN R.
6th International Conference on Crystalline Silicon Photovoltaics (SiliconPV), Chambéry, France, 7 - 09 March 2016, vol.92, pp.291-296
- XX. **Fabrication of a Three-Axis Capacitive MEMS Accelerometer on a Single Substrate**
Aydemir A., AKIN T.
2015 IEEE SENSORS, Busan, South Korea, 1 - 04 November 2015, pp.528-531
- XXI. **A simple out of plane capacitive MEMS accelerometer utilizing lateral and vertical electrodes for differential sensing**
Terzioglu Y., Kose T., Azgin K., Akin T.
2015 IEEE SENSORS, Busan, South Korea, 1 - 04 November 2015, pp.1-3
- XXII. **An Ultimate Capacitive MEMS Vertical Accelerometer with Differential Sensing Capability**
AYDEMİR A., AKIN T.
The 26th Micromechanics and Micro Systems Europe Workshop, (MME'15), 20 - 23 September 2015
- XXIII. **DRIE Process Optimization to Achieve High Aspect Ratio for Capacitive MEMS Sensors**
AYDEMİR A., AKIN T.
The 26th Micromechanics and Micro Systems Europe Workshop, (MME'15), 20 - 23 September 2015
- XXIV. **Detection of the mm-wave radiation using a low-cost LWIR microbolometer camera from a multiplied Schottky diode based source**
Kebapci B., Tankut F., ALTAN H., AKIN T.
Conference on Millimetre Wave and Terahertz Sensors and Technology VIII, Toulouse, France, 22 September 2015, vol.9651
- XXV. **Process Development for the Fabrication of a Three Axes Capacitive MEMS Accelerometer**
Aydemir A., AKIN T.

Conference on EUROSENSORS, Freiburg, Germany, 6 - 09 September 2015, vol.120, pp.727-730

- XXVI. **Development of Wafer Level Au Sn Eutectic Bonding Techniques for MEMS Applications**
YILMAZ S., Demir E. C., Temel O., AKIN T., KALAY Y. E.
Elektron Mikroskopi Kongresi, Turkey, 2 - 04 September 2015
- XXVII. **THE ADVANCED MEMS (aMEMS) PROCESS FOR FABRICATING WAFER LEVEL VACUUM PACKAGED SOI-MEMS DEVICES WITH EMBEDDED VERTICAL FEEDTHROUGHS**
Torunbalci M. M., Alper S. E., AKIN T.
18th International Conference on Solid-State Sensors, Actuators and Microsystems (TRANSDUCERS), Alaska, United States Of America, 21 - 25 June 2015, pp.472-475
- XXVIII. **LABEL-FREE DETECTION OF LEUKEMIA CELLS WITH A LAB-ON-A-CHIP SYSTEM INTEGRATING DIELECTROPHORESIS AND CMOS IMAGING**
Demircan Y., Orguc S., Musayev J., Ozgur E., ERDEM M., GÜNDÜZ U., Eminoglu S., KÜLAH H., AKIN T.
18th International Conference on Solid-State Sensors, Actuators and Microsystems (TRANSDUCERS), Alaska, United States Of America, 21 - 25 June 2015, pp.1589-1592
- XXIX. **AN AUTOMATIC MODE MATCHING SYSTEM FOR A HIGH Q-FACTOR MEMS GYROSCOPE USING A DECOUPLED PERTURBATION SIGNAL**
Yesil F., Alper S. E., Akin T.
18th International Conference on Solid-State Sensors, Actuators and Microsystems (TRANSDUCERS), Alaska, United States Of America, 21 - 25 June 2015, pp.1148-1151
- XXX. **AN AUTOMATIC ACCELERATION COMPENSATION SYSTEM FOR A SINGLE-MASS MEMS GYROSCOPE**
Gavcar H. D., AZGIN K., Alper S. E., Akin T.
18th International Conference on Solid-State Sensors, Actuators and Microsystems (TRANSDUCERS), Alaska, United States Of America, 21 - 25 June 2015, pp.19-22
- XXXI. **RF MEMS Based Millimeter Wave Phased Array for Short Range Communication**
Bayraktar O., Kobal E., Sevinc Y., Cetintepe C., Comart I., Demirel K., Topalli E. S., Akin T., Demir Ş., Civi O. A.
9th European Conference on Antennas and Propagation EuCAP, Lisbon, Portugal, 13 - 17 May 2015
- XXXII. **A 640x480-17 µm ROIC for uncooled microbolometer FPAs**
Eminoglu S., Gulden M. A., Bayhan N., Incedere O. S., Isikhan M., Soyer S. T., Yalcin C., Ustundag C. M. B., Kocak S., Turan O., et al.
41st Conference on Infrared Technology and Applications, Maryland, United States Of America, 20 - 23 April 2015, vol.9451
- XXXIII. **A 1280x1024-15 µm CTIA ROIC for SWIR FPAs**
Eminoglu S., Isikhan M., Bayhan N., Gulden M. A., Incedere O. S., Soyer S. T., Kocak S., Yalcin C., Ustundag M. C. B., Turan O., et al.
41st Conference on Infrared Technology and Applications, Maryland, United States Of America, 20 - 23 April 2015, vol.9451
- XXXIV. **A single mass two-axis capacitive MEMS accelerometer with force rebalance**
Köse T., Terzioğlu Y., Azgln K., Akin T.
2nd IEEE International Symposium on Inertial Sensors and Systems, IEEE ISSS 2015, Hawaii, United States Of America, 23 - 26 March 2015
- XXXV. **Die Size Reduction by Optimizing the Dimensions of the Vertical Feedthrough Pitch and Sealing Area in the Advanced MEMS (aMEMS) Process**
Torunbalci M. M., Alper S. E., Akin T.
2nd IEEE International Symposium on Inertial Sensors and Systems (ISSS), Hawaii, United States Of America, 23 - 26 March 2015, pp.86-89
- XXXVI. **A NOVEL FABRICATION AND WAFER LEVEL HERMETIC SEALING METHOD FOR SOI-MEMS DEVICES USING SOI CAP WAFERS**
Torunbalci M. M., Alper S. E., Akin T.
28th IEEE International Conference on Micro Electro Mechanical Systems (MEMS), Estoril, Portugal, 18 - 22 January 2015, pp.409-412
- XXXVII. **Fabrication and Characterization of Gold-Tin Eutectic Bonding for Hermetic Packaging of MEMS**

Devices

DEMIR E. C., TORUNBALCI M. M., DONMEZ I., KALAY Y. E., AKIN T.

IEEE 16th Electronics Packaging Technology Conference (EPTC), Marina Bay Sands, Singapore, 3 - 05 December 2014, pp.241-245

- XXXVIII. **Gold-tin eutectic bonding for hermetic packaging of MEMS devices with vertical feedthroughs**
Torunbalci M. M., Demir E. C., Donmez I., Alper S. E., Akin T.
13th IEEE SENSORS Conference, SENSORS 2014, Valencia, Spain, 2 - 05 November 2014, pp.2187-2190
- XXXIX. **A Method of Fabricating Vacuum Packages with Vertical Feedthroughs in a Wafer Level Anodic Bonding Process**
Torunbalci M. M., Alper S. E., Akin T.
28th European Conference on Solid-State Transducers (EUROSENSORS), Brescia, Italy, 7 - 10 September 2014, vol.87, pp.887-890
- XL. **A Miniature Low-Cost LWIR Camera with a 160x120 Microbolometer FPA**
Tepegöz M., Kucukkomurler A., Tankut F., Eminoglu S., Akin T.
40th Conference on Infrared Technology and Applications, Maryland, United States Of America, 4 - 08 May 2014, vol.9070
- XLII. **MT3825BA: A 384x288-25 μ m ROIC for Uncooled Microbolometer FPAs**
Eminoglu S., Gulden M. A., Bayhan N., Incedere O. S., Soyer S. T., Ustundag C. M. B., Isikhan M., Kocak S., Turan O., Yalcin C., et al.
40th Conference on Infrared Technology and Applications, Maryland, United States Of America, 4 - 08 May 2014, vol.9070
- XLIII. **Broadband absorption enhancement in an uncooled microbolometer infrared detector**
Kebapci B., Dervisoglu O., Battal E., OKYAY A. K., AKIN T.
40th Conference on Infrared Technology and Applications, Maryland, United States Of America, 4 - 08 May 2014, vol.9070
- XLIV. **A Capacitive MEMS Accelerometer Readout with Concurrent Detection and Feedback Using Discrete Components**
Terzioglu Y., Alper S. E., AZGIN K., Akin T.
IEEE/ION Position, Location and Navigation Symposium (PLANS), Monterrey, Mexico, 5 - 08 May 2014, pp.12-15
- XLV. **Wafer level hermetic encapsulation of MEMS inertial sensors using SOI cap wafers with vertical feedthroughs**
Mert Torunbalci M., Alper S. E., Akin T.
1st IEEE International Symposium on Inertial Sensors and Systems, ISSS 2014, Laguna Beach, CA, United States Of America, 25 - 26 February 2014
- XLVI. **SIMULTANEOUS DETECTION OF LINEAR AND CORIOLIS ACCELERATIONS ON A MODE-MATCHED MEMS GYROSCOPE**
Sonmezoglu S., Gavcar H. D., AZGIN K., Alper S. E., AKIN T.
27th IEEE International Conference on Micro Electro Mechanical Systems (MEMS), San-Francisco, Costa Rica, 26 - 30 January 2014, pp.32-35
- XLVII. **Fabrication of A Sandwich Type Three Axis Capacitive MEMS Accelerometer**
Tez S., Akin T.
12th IEEE Sensors Conference, Maryland, United States Of America, 3 - 06 November 2013, pp.1863-1866
- XLVIII. **A Fabrication Process Flow for Stacked Structural Layer Formation Using Au Au Thermocompression Bonding for RF MEMS Capacitive Switches**
Topalli E., Çetintepe Ç., Aydın Çivi H. Ö., Demir Ş., Akin T.
14th Int. Symposium on RF-MEMS and RF-Microsystems, Potsdam, Germany, 1 - 03 July 2013
- XLIX. **A high performance automatic mode-matched MEMS gyroscope with an improved thermal stability of the scale factor**
Sonmezoglu S., Alper S., AKIN T.
2013 17th International Conference on Solid-State Sensors, Actuators and Microsystems, TRANSDUCERS and EUROSENSORS 2013, Barcelona, Spain, 16 - 20 June 2013, pp.2519-2522

- XLIX. MT6415CA: A 640x512-15 μm CTIA ROIC for SWIR InGaAs Detector Arrays**
Eminoglu S., Isikhan M., Bayhan N., Gulden M. A., Incedere O. S., Soyer S. T., Kocak S., Yilmaz G. S., Akin T.
Conference on Infrared Technology and Applications XXXIX, Maryland, United States Of America, 29 April - 03 May 2013, vol.8704
- L. A Plasmonically Enhanced Pixel Structure for Uncooled Microbolometer Detectors**
Erturk O., Battal E., Kucuk S. E., Okyay A. K., AKIN T.
Conference on Infrared Technology and Applications XXXIX, Maryland, United States Of America, 29 April - 03 May 2013, vol.8704
- LI. MT3250BA: A 320x256-50 μm Snapshot Microbolometer ROIC for High-Resistance Detector Arrays**
Eminoglu S., Akin T.
Conference on Infrared Technology and Applications XXXIX, Maryland, United States Of America, 29 April - 03 May 2013, vol.8704
- LII. Cell detection using a CMOS image sensor with modified pixel structure suitable for bio-chemical surface activation**
Musayev J., Adiguzel Y., Kulah H., Eminoglu S., Akin T.
IEEE 26th International Conference on Micro Electro Mechanical Systems, MEMS 2013, Taipei, Taiwan, 20 - 24 January 2013, pp.941-944
- LIII. A bulk-micromachined fully-differential MEMS accelerometer with interdigitated fingers**
Aydin O., AKIN T.
11th IEEE SENSORS 2012 Conference, Taipei, Taiwan, 28 - 31 October 2012
- LIV. Comparison of Two Alternative Fabrication Processes for a Three-Axis Capacitive MEMS Accelerometer**
Tez S., Akin T.
26th European Conference on Solid-State Transducers (Euroensors), Krakow, Poland, 9 - 12 September 2012, vol.47, pp.342-345
- LV. Veils-Free DRY (ICP) Etching of Gold Films with a Vertical Sharp Sidewall**
Keskin S., Aydemir A., Akin T.
The 23rd Micromechanics and Micro Systems Europe Workshop, (MME'12), Erfurt, Germany, 9 - 12 September 2012, pp.1-5
- LVI. 3-bit CPW Phase Shifter Implemented by a Reduced Branch Line Coupler**
Kılıç O., Comart İ., Demir Ş., Akin T.
The 13th International. Symposium on RF MEMS and RF Microsystems (MEMSWAVE 2012), Antalya, Turkey, 2 - 04 July 2012
- LVII. A 35 GHz High Isolation RF MEMS SPDT Switch**
Comart İ., Çetintepe Ç., Demir Ş., Akin T.
The 13th International. Symposium on RF MEMS and RF Microsystems (MEMSWAVE 2012), Antalya, Turkey, 2 - 04 July 2012
- LVIII. A 5-Bit DMTL Phase Shifter with Analog Tuning Capabilities**
Çetintepe Ç., Demirel K., Demir Ş., Akin T.
The 13th International. Symposium on RF MEMS and RF Microsystems (MEMSWAVE 2012), Antalya, Turkey, 2 - 04 July 2012
- LIX. Surface Micromachining Implementation of S-Band 4-bit Phase Shifter**
Tokgöz K., Demir Ş., Akin T.
The 13th International. Symposium on RF MEMS and RF Microsystems (MEMSWAVE 2012), Antalya, Turkey, 2 - 04 July 2012
- LX. The First Fabricated Dual-Band Uncooled Infrared Microbolometer Detector with a Tunable Micro-Mirror Structure**
Keskin S., Akin T.
Conference on Infrared Technology and Applications XXXVIII, Maryland, United States Of America, 23 - 27 April 2012, vol.8353

- LXI. **MT6425CA: A 640x512-25 μ m CTIA ROIC for SWIR InGaAs Detector Arrays**
Eminoglu S., Mahsereci Y. U., Altiner C., AKIN T.
Conference on Infrared Technology and Applications XXXVIII, Maryland, United States Of America, 23 - 27 April 2012, vol.8353
- LXII. **An Analysis for the Broad-Band Absorption Enhancement Using Plasmonic Structures on Uncooled Infrared Detector Pixels**
Lulec S. Z., KÜÇÜK S., Battal E., Okyay A. K., Tanrikulu M. Y., AKIN T.
Conference on Infrared Technology and Applications XXXVIII, Maryland, United States Of America, 23 - 27 April 2012, vol.8353
- LXIII. **An Uncooled Microbolometer Focal Plane Array Using Heating Based Resistance Nonuniformity Compensation**
Tepegöz M., Oguz A., Toprak A., Senveli S. U., Canga E., Tanrikulu M. Y., Akın T.
Conference on Infrared Technology and Applications XXXVIII, Maryland, United States Of America, 23 - 27 April 2012, vol.8353
- LXIV. **An automatically mode-matched MEMS gyroscope with 50 Hz bandwidth**
Sonmezoglu S., Alper S., Akın T.
2012 IEEE 25th International Conference on Micro Electro Mechanical Systems, MEMS 2012, Paris, France, 29 January - 02 February 2012, pp.523-526
- LXV. **A method and electrical model for the anodic bonding of SOI and glass wafers**
Tatar E., Torunbalci M., Alper S., AKIN T.
2012 IEEE 25th International Conference on Micro Electro Mechanical Systems, MEMS 2012, Paris, France, 29 January - 02 February 2012, pp.68-71
- LXVI. **A New Baseband Equivalent Model for Sense Mode Dynamics and Its Effects on Force-Feedback Controller Design for MEMS Gyroscopes**
Eminoglu B., Alper S. E., AKIN T.
10th IEEE Conference on Sensors, Limerick, Ireland, 28 - 31 October 2011, pp.157-160
- LXVII. **Comparison of Two Alternative Silicon-On-Glass Microfabrication Processes for MEMS Inertial Sensors**
Torunbalci M. M., Tatar E., Alper S. E., AKIN T.
25th Eurosensors Conference, Athens, Greece, 4 - 07 September 2011, vol.25
- LXVIII. **An Optimized Analog Drive-Mode Controller for Vibratory MEMS Gyroscopes**
Eminoglu B., Alper S. E., AKIN T.
25th Eurosensors Conference, Athens, Greece, 4 - 07 September 2011, vol.25
- LXIX. **Reconfigurable antennas using RF-MEMS research in Turkey**
Civi O. A., Demir Ş., Akın T.
2011 IEEE MTT-S International Microwave Symposium, IMS 2011, Baltimore, MD, United States Of America, 5 - 10 June 2011
- LXX. **A fourth order unconstrained $\Sigma\Delta$ capacitive accelerometer**
Sonmez U., KÜLAH H., AKIN T.
2011 16th International Solid-State Sensors, Actuators and Microsystems Conference, TRANSDUCERS'11, Beijing, China, 5 - 09 June 2011, pp.707-710
- LXXI. **Experimental evaluation of alternative drive-mode control electronics developed for high-performance MEMS gyroscopes**
ŞAHİN E., Alper S., AKIN T.
2011 16th International Solid-State Sensors, Actuators and Microsystems Conference, TRANSDUCERS'11, Beijing, China, 5 - 09 June 2011, pp.2817-2820
- LXXII. **Novel, simple, and Q-independent self oscillation loop designed for vibratory MEMS gyroscopes**
Eminoglu B., Alper S., AKIN T.
2011 16th International Solid-State Sensors, Actuators and Microsystems Conference, TRANSDUCERS'11, Beijing, China, 5 - 09 June 2011, pp.1440-1443
- LXXIII. **A Thermal Conductance Optimization and Measurement Approach for Uncooled Microbolometers**

- Senveli S. U., Tanrikulu M. Y., AKIN T.
Conference on Infrared Technology and Applications XXXVII, Florida, United States Of America, 25 - 29 April 2011, vol.8012
- LXXIV. **A Two-Stage Digital-to-Analog Converter for Bias Correction in Uncooled Microbolometer Arrays**
Toprak A., Tepegöz M., AKIN T.
Conference on Infrared Technology and Applications XXXVII, Florida, United States Of America, 25 - 29 April 2011, vol.8012
- LXXV. **A Detailed Analysis for the Absorption Coefficient of Multilevel Uncooled Infrared Detectors**
KÜÇÜK S., Tanrikulu M. Y., AKIN T.
Conference on Infrared Technology and Applications XXXVII, Florida, United States Of America, 25 - 29 April 2011, vol.8012
- LXXVI. **A RESONANT TUNING FORK FORCE SENSOR WITH UNPRECEDENTED COMBINATION OF RESOLUTION AND RANGE**
Azgin K., Ro C., Torrents A., Akin T., Valdevit L.
24th IEEE International Conference on Micro Electro Mechanical Systems (MEMS), Cancun, Mexico, 23 - 27 January 2011, pp.545-548
- LXXVII. **EFFECT OF QUADRATURE ERROR ON THE PERFORMANCE OF A FULLY-DECOUPLED MEMS GYROSCOPE**
Tatar E., Alper S. E., AKIN T.
24th IEEE International Conference on Micro Electro Mechanical Systems (MEMS), Cancun, Mexico, 23 - 27 January 2011, pp.569-572
- LXXVIII. **A 35 GHz coplanar waveguide power divider**
Gürbüz O. D., Topalli K., Ünlü M., DEMİR Ş., AKIN T.
2010 10th Mediterranean Microwave Symposium, MMS 2010, Guzelyurt, Cyprus (Gkry), 25 - 27 August 2010, pp.22-24
- LXXIX. **35 GHz phased array antenna using DMTL phase shifters**
Guclu C., Cetintepe C., Civi O. A., DEMİR Ş., AKIN T.
2010 10th Mediterranean Microwave Symposium, MMS 2010, Guzelyurt, Cyprus (Gkry), 25 - 27 August 2010, pp.114-117
- LXXX. **RF MEMS Anahtarlı Ayarlanabilir Yansıtıcı Dizi Anteni**
BAYRAKTAR Ö., AYDIN ÇİVİ H. Ö., AKIN T.
URSI Türkiye 5. Bilimsel Kongresi, Turkey, 25 - 27 August 2010
- LXXXI. **Beam Switching Reflectarray with MEMS Controls**
Bayraktar O., Civi O. A., Akin T.
4th European Conference on Antennas and Propagation (EuCAP), Barcelona, Spain, 12 - 16 April 2010
- LXXXII. **Feasibility study for tunable metamaterial design using multi-split SRR structures and RF MEMS switching**
Ekmekci E., Topalli K., AKIN T., Turhan-Sayan G.
2009 IEEE International Symposium on Antennas and Propagation and USNC/URSI National Radio Science Meeting, APSURSI 2009, North Charleston, SC, United States Of America, 1 - 05 June 2009
- LXXXIII. **Investigation of Contact Angle Behavior on Superhydrophobic Patterned Surfaces**
Cansoy C., Erbil H., Akar O., Akin T.
13th European Conference on Applications of Surface and Interface Analysis, Antalya, Turkey, 18 - 23 October 2009
- LXXXIV. **Effects of Array Dimensions on the Resonance Characteristics of SRR Type Metamaterial Arrays with Small Sizes: Simulations and Experiments**
Ekmekci E., Topalli K., AKIN T., Turhan-Sayan G.
Progress in Electromagnetics Research Symposium (PIERS 2009 Moscow), Moscow, Russia, 12 - 21 August 2009, pp.83-86
- LXXXV. **A Wide-Bandwidth and High-Sensitivity Robust Microgyroscope**
Akin T., Şahin K., Şahin E., Alper S. E.

- 19th MicroMechanics Europe Workshop (MME 2008), Aachen, Germany, 28 - 30 September 2008, pp.97-100
- LXXXVI. **Stepped-etching for preserving critical dimensions in through-wafer deep reactive ion etching of thick silicon**
Alper S. E., Aydemir A., AKIN T.
TRANSDUCERS 2009 - 15th International Conference on Solid-State Sensors, Actuators and Microsystems, Denver, CO, United States Of America, 21 - 25 June 2009, pp.1110-1113
- LXXXVII. **A Feasibility Study for Tunable Metamaterial Design Using Multi-Split SRR Structures and RF MEMS Switching**
Ekmekci E., Topalli K., AKIN T., SAYAN G.
IEEE Antennas and Propagation International Symposium /USNC/URSI National Radio Science Meeting, South-Carolina, United States Of America, 1 - 05 June 2009, pp.1548-1551
- LXXXVIII. **A column-based two-stage analog-to-digital converter for uncooled microbolometer arrays**
Toprak A., Tepegoz M., AKIN T.
Infrared Technology and Applications XXXV, Orlando, FL, United States Of America, 13 - 17 April 2009, vol.7298
- LXXXIX. **A bias heating cancellation method for resistive uncooled microbolometer detectors**
Oguz A., Tepegoz M., AKIN T.
Infrared Technology and Applications XXXV, Orlando, FL, United States Of America, 13 - 17 April 2009, vol.7298
- XC. **Experimental Investigation of Metamaterial Array Structures With Split Ring Resonators**
Ekmekci E., Topalli K., AKIN T., SAYAN G.
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Turkey, 9 - 11 April 2009, pp.551-554
- XCI. **MODELING OF A CAPACITIVE Sigma-Delta MEMS ACCELEROMETER SYSTEM INCLUDING THE NOISE COMPONENTS AND VERIFICATION WITH TEST RESULTS**
Boga B., Ocak I. E., KÜLAH H., AKIN T.
22nd International Conference on Micro Electro Mechanical Systems (MEMS), Sorrento, Italy, 25 - 29 January 2009, pp.821-824
- XCII. **AN ANALYSIS TO IMPROVE STABILITY OF DRIVE-MODE OSCILLATIONS IN CAPACITIVE VIBRATORY MEMS GYROSCOPES**
Alper S. E., Sahin K., AKIN T.
22nd International Conference on Micro Electro Mechanical Systems (MEMS), Sorrento, Italy, 25 - 29 January 2009, pp.817-820
- XCIII. **RF MEMS Anahtarlama Tekniği ile AHR Tipi Metamalzemelerde Manyetik Rezonans Frekansinin Adaptif Bicimde Ayarlanması**
EKMEKÇİ E., TOPALLI K., AKIN T.
URSI-Türkiye 2008 4. Bilimsel Kongresi, Antalya, Turkey, 20 - 22 October 2008, pp.106-109
- XCIV. **RF MEMS Teknolojisi ile S Bandı Tümlleşik Bant Geçiren Filtre Yapısı**
ÇETİNTEPE Ç., DEMİR Ş., AKIN T.
URSI-Türkiye 2008 4. Bilimsel Kongresi, Antalya, Turkey, 20 - 22 October 2008, pp.137-140
- XCV. **RF MEMS Yapıların Glass Frit ile 0 seviye Paketlenmesi**
TOPALLI K., COMART İ., AKIN T.
URSI-Türkiye 2008 4. Bilimsel Kongresi, Antalya, Turkey, 20 - 22 October 2008, pp.110-113
- XCVI. **Sogutmasiz Kizilötesi Termomekanik Algilayici Tasarimi Üretimi ve Testi**
TOY M. F., FERHANOĞLU O., AKAR O., AKIN T.
10. Ulusal Fotonik Çalistayi, Kocaeli, Turkey, 17 October 2008
- XCVII. **A mu g resolution microaccelerometer system with a second-order Sigma-Delta readout circuitry**
Kepenek R., Ocak I. E., KÜLAH H., AKIN T.
Conference on PhD Research in Microelectronics and Electronics, İstanbul, Turkey, 22 - 25 June 2008, pp.41-44
- XCVIII. **A new method to estimate the absorption coefficient for uncooled infrared detectors**
Tanrikulu M. Y., Civitci F., AKIN T.
34th Conference on Infrared Technology and Applications, Florida, United States Of America, 17 - 20 March 2008, vol.6940

- XCIX. An optimum reference detector design for uncooled microbolometer FPAs**
Tepegoz M., Civitci F., AKIN T.
34th Conference on Infrared Technology and Applications, Florida, United States Of America, 17 - 20 March 2008, vol.6940
- C. A low power readout circuit approach for uncooled resistive microbolometer FPAs**
Tepegoz M., Toprak A., AKIN T.
34th Conference on Infrared Technology and Applications, Florida, United States Of America, 17 - 20 March 2008, vol.6940
- CI. Reconfigurable RF MEMS Devices and Antennas**
Kaan T., Ünlü M., İstanbulluoğlu İ., Atasoy H. İ., Bayraktar Ö., Aydın Çivi H. Ö., Demir Ş., Koç S. S., Akın T.
5th International Conference on Electrical and Electronics Engineering (ELECO 2007), Bursa, Turkey, 5 - 09 December 2007
- CII. Reconfigurable Antennas by RF MEMS Technology**
Topallı K., Ünlü M., İstanbulluoğlu İ., Atasoy H. İ., Bayraktar Ö., Aydın Çivi H. Ö., Demir Ş., Koç S. S., Akın T.
5th International Conference on Electrical and Electronics Engineering (ELECO 2007), Bursa, Turkey, 5 - 09 December 2007, pp.204-209
- CIII. Beam switching reflectarray using RF MEMS technology**
Bayraktar O., Topallı K., Unlu M., Civi O., Demir Ş., Akın T.
2nd European Conference on Antennas and Propagation, EuCAP 2007, Edinburgh, United Kingdom, 11 - 16 November 2007, vol.2007
- CIV. A novel in-operation high g-survivable MEMS gyroscope**
Azgin K., Temiz Y., Akın T.
6th IEEE Sensors Conference, Georgia, United States Of America, 28 - 31 October 2007, pp.111-114
- CV. Double stub and triple stub RF MEMS impedance tuners**
Akın T.
Proceedings of 8th International Symposium on RF MEMS and RF Microsystems, MEMSWAVE, Barcelona, Spain, 26 - 29 June 2007, pp.169-172
- CVI. Monolithically Integrated MEMS Phased Array**
Topallı K., Aydın Çivi H. Ö., Demir Ş., Koç S. S., Akın T.
Proceedings of 8th International Symposium on RF MEMS and RF Microsystems, MEMSWAVE, Barcelona, Spain, 26 - 29 June 2007, pp.119-122
- CVII. Dual-frequency reconfigurable slot dipole array with a CPW-based feed network using RF MEMS technology for X- and Ka-band applications**
Topallı K., Civi Ö. A., Demir Ş., Koc S., Akın T.
2007 IEEE Antennas and Propagation Society International Symposium, AP-S, Honolulu, HI, United States Of America, 10 - 15 June 2007, pp.825-828
- CVIII. Resistance non-uniformity correction method using bias heating for resistance type uncooled microbolometer FPAs**
Tepegoz M., Akın T.
Conference on Infrared Technology and Applications XXXIII, Florida, United States Of America, 9 - 13 April 2007, vol.6542
- CIX. An SOI-MEMS tuning fork gyroscope with linearly coupled drive mechanism**
Azgin K., Temiz Y., Akın T.
20th IEEE International Conference on Micro Electro Mechanical Systems (MEMS 2007), Kobe, Japan, 21 - 25 January 2007, pp.482-485
- CX. A monolithic phased array using 3-bit DMTL RF MEMS phase shifters**
Topallı K., Unlu M., AYDIN ÇİVİ H. Ö., DEMİR Ş., KOÇ S. S., AKIN T.
IEEE Antennas and Propagation Society International Symposium, APS 2006, Albuquerque, NM, United States Of America, 9 - 14 July 2006, pp.517-520
- CXI. A Low Cost Rate Grade Nickel Microgyroscope**
Alper S. E., Silay K. M., Akın T.

- The 19th European Conf. on Solid-State Transducers (Eurosensors XIX), Barcelona, Spain, 11 - 14 September 2005
- CXII. **Tactical-Grade Silicon-on-Glass Gyroscope with Very-Small Quadrature Coupling**
Alper S. E., Silay K. M., Akın T.
The 19th European Conf. on Solid-State Transducers (Eurosensors XIX), Gothenburg, Sweden, 17 - 20 September 2006
- CXIII. **A reconfigurable RF MEMS triple stub impedance matching network**
Unlu M., Topalli K., Atasoy H., Temocin E., Istanbuluoglu I., Bayraktar O., Demir Ş., Civi O., Koç S. S., Akın T.
36th European Microwave Conference, EuMC 2006, Manchester, United Kingdom, 10 - 12 September 2006, pp.1370-1373
- CXIV. **Investigation of on-wafer TRL calibration accuracy dependence on transitions and probe positioning**
Atasoy H., Unlu M., Topalli K., Istanbuluoglu I., Temocin E., Bayraktar O., Demir Ş., Civi O., Koç S. S., Akın T.
36th European Microwave Conference, EuMC 2006, Manchester, United Kingdom, 10 - 12 September 2006, pp.1582-1585
- CXV. **MEMS and Microsystem Technologies for Microsensors and Biological Microdevices**
Külah H., Akın T.
The 7th Workshop on Biosensors and Bioanalytical u-Techniques in Environmental and Clinical Analysis, Aydın, Turkey, 10 - 14 September 2006
- CXVI. **Radio Frequency Micro Electro Mechanical Systems RF MEMS**
AKIN T.
National URSI Symposium Turkey, Antalya, Turkey, 6 - 08 September 2006, pp.11
- CXVII. **TRL Kalibrasyonunda Uç Konumlandırması ve Geçişlerin Etkileri**
ATASOY H. İ., ÜNLÜ M., TOPALLI K., İSTANBULLUOĞLU İ., TEMOÇİN E. U., BAYRAKTAR Ö., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
National URSI Symposium Turkey, Turkey, 6 - 08 September 2006, pp.426-428
- CXVIII. **RF MEMS Teknolojisi ile Kapasitif ve Metal Metal Bağlantılı Paralel Anahtar Yapıları**
ATASOY H. İ., TOPALLI K., ÜNLÜ M., İSTANBULLUOĞLU İ., ENGİN UFUK T., ÖMER B., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
National URSI Symposium Turkey, Turkey, 6 - 08 September 2006, pp.410-412
- CXIX. **RF MEMS Teknolojisi ile Yansıtıcı Dizi Anteni Tasarımı**
BAYRAKTAR Ö., TOPALLI K., ÜNLÜ M., İSTANBULLUOĞLU İ., ENGİN UFUK T., ATASOY H. İ., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
National URSI Symposium Turkey, Ankara, Turkey, 6 - 08 September 2006, pp.438-440
- CXX. **RF MEMS Kapasitörler ile Rezonans Frekansı Ayarlanabilen Antenler**
ERDİL E., TOPALLI K., ÜNLÜ M., AYDIN ÇİVİ H. Ö., AKIN T.
National URSI Symposium Turkey, Turkey, 6 - 08 September 2006, pp.404-406
- CXXI. **RF MEMS Teknolojisi ile Tek Parça Faz Dizili Anten Yapısı**
TOPALLI K., ÜNLÜ M., AYDIN ÇİVİ H. Ö., DEMİR Ş., KOÇ S. S., AKIN T.
National URSI Symposium Turkey, Ankara, Turkey, 6 - 08 September 2006, pp.413-415
- CXXII. **RF MEMS Teknolojisi ile Ayarlanabilir Empedans Uyumlama Devresi**
ÜNLÜ M., TOPALLI K., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
National URSI Symposium Turkey, Ankara, Turkey, 6 - 08 September 2006, pp.407-409
- CXXIII. **Esdüzlemsel Dalga Klavuzundan Mikroserit Hatta Geçiş Üzerine Çalışmalar**
TEMOÇİN E. U., TOPALLI K., ÜNLÜ M., İSTANBULLUOĞLU İ., ATASOY H. İ., BAYRAKTAR Ö., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
National URSI Symposium Turkey, Ankara, Turkey, 6 - 08 September 2006, pp.448-450
- CXXIV. **RF MEMS Yapılarının Vakum Testi İçin Pirani Gauge**
PASİN Ö., AKIN T.
National URSI Symposium Turkey, Turkey, 6 - 08 September 2006, pp.386-388
- CXXV. **RF MEMS Teknolojisi Kullanılarak Tasarlanmış Ayarlanabilir Bant Geçiren Bağlanmış Hat Süzgeç**
İSTANBULLUOĞLU İ., TOPALLI K., TEMOÇİN E. U., ATASOY H. İ., ÜNLÜ M., BAYRAKTAR Ö., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.

National URSI Symposium Turkey, Ankara, Turkey, 6 - 08 September 2006, pp.416-418

- CXXXVI. **A Reconfigurable RF MEMS Impedance Tuner for Impedance Matching of a Two Stage Low Noise Amplifier**
ÜNLÜ M., TOPALLI K., ATASOY H. İ., TEMOÇİN E. U., İSTANBULLUOĞLU İ., BAYRAKTAR Ö., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
7th Workshop on MEMS for MilimeterWave Communications (MEMSWAVE), 27 - 30 June 2006
- CXXXVII. **Metal to metal and capacitive contact RF MEMS shunt switch structures**
ATASOY H. İ., TOPALLI K., ÜNLÜ M., İSTANBULLUOĞLU İ., TEMOÇİN E. U., BAYRAKTAR Ö., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
7th Workshop on MEMS for MilimeterWave Communications (MEMSWAVE), 27 - 30 June 2006, pp.154-156
- CXXXVIII. **Dynamic resistance nonuniformity compensation circuit for uncooled microbolometer detector arrays**
Yildirim O. O., AKIN T.
32nd Conference on Infrared Technology and Applications, Florida, United States Of America, 17 - 21 April 2006, vol.6206
- CXXXIX. **High-performance SOI-MEMS gyroscope with decoupled oscillation modes**
Alper S., Azgin K., Akin T.
19th IEEE International Conference on Micro Electro Mechanical Systems (MEMS 2006), İstanbul, Turkey, 22 - 26 January 2006, pp.70-73
- CXXXX. **Ultra-thick and high-aspect-ratio nickel microgyroscope using EFAB (TM) multi-layer additive electroforming**
Alper S., Ocak I., Akin T.
19th IEEE International Conference on Micro Electro Mechanical Systems (MEMS 2006), İstanbul, Turkey, 22 - 26 January 2006, pp.670-673
- CXXXI. **Reconfigurable slot antenna with fixed-fixed beam type RF MEMS capacitors**
Erdil E., Topalli K., Unlu M., Istanbuluoglu I., Temocin E. U., Atasoy H. I., Bayraktar O., AYDIN ÇİVİ H. Ö., DEMİR Ş., Koc S., et al.
European Conference on Antennas and Propagation: EuCAP 2006, Nice, France, 6 - 10 November 2006, vol.626 SP
- CXXXII. **Reconfigurable reflectarray using RF MEMS technology**
Bayraktar O., Topalli K., Unlu M., Istanbuluoglu I., Temocin E. U., Atasoy H. I., AYDIN ÇİVİ H. Ö., DEMİR Ş., Koc S., AKIN T.
European Conference on Antennas and Propagation: EuCAP 2006, Nice, France, 6 - 10 November 2006, vol.626 SP
- CXXXIII. **RF MEMS teknolojisi ile mikroserit ve esduzlemsel dalga kilavuzu hat ustunde paralel anahtar yapıları**
TOPALLI K., ÜNLÜ M., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
National URSI Symposium Turkey, Turkey, 8 - 10 September 2004, pp.370-372
- CXXXIV. **Design of a Re-configurable dual frequency microstrip antenna with integrated RF MEMS switches**
Onat S., Ünlü M., Alatan L., Demir Ş., Akin T.
2005 IEEE Antennas and Propagation Society International Symposium and USNC/URSI Meeting, Washington, United States Of America, 3 - 08 July 2005, pp.384-387
- CXXXV. **Reconfigurable CPW-FED dual-frequency rectangular slot antenna using RF MEMS technology**
Erdil E., Topalli K., Civi O. A., Akin T.
2005 IEEE Antennas and Propagation Society International Symposium and USNC/URSI Meeting, Washington, United States Of America, 3 - 08 July 2005, pp.392-395
- CXXXVI. **Reconfigurable Antenna Structures Using MEMS Technology**
Erdil E., Onat S., Topalli K., Istanbuluoglu İ., Ünlü M., Demir Ş., Aydın Çivi H. Ö., Alatan L., Koç S. S., Akin T.
6th Workshop on MEMS for MilimeterWave Communications (MEMSWAVE), Lausanne, Switzerland, 23 - 24 June 2005
- CXXXVII. **A parametric modeling study on distributed MEMS transmission lines**
Unlu M., Topalli K., Demir Ş., Civi O., Koc S., Akin T.
Conference Proceedings- 34th European Microwave Conference, London, United Kingdom, 12 - 14 October 2004,

vol.3, pp.1157-1160

- CXXXVIII. **Sıralanmis MEMS iletım hatları için yeni bir model**
ÜNLÜ M., TOPALLI K., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
National URSI Symposium Turkey, Turkey, 8 - 10 September 2004, pp.435-437
- CXXXIX. **Design and Modeling of a Reconfigurable Triple Stub Impedance Matching Network using Distributed MEMS Transmission Lines**
ÜNLÜ M., TOPALLI K., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
5th Workshop on MEMS for MilimeterWave Communications (MEMSWAVE), 30 June - 02 July 2004
- CXL. **A thermal conductivity based humidity sensor in a standard CMOS process**
Okean B., Akin T.
17th IEEE International Conference on Micro Electro Mechanical Systems, Maastricht, Netherlands, 25 - 29 January 2004, pp.552-555
- CXLI. **A new model for distributed mems transmission lines**
Topalli K., Unlu M., Sagkol H., Demir Ş., Civi O., Koc S., Akin T.
IEEE Antennas and Propagation Society Symposium 2004 Digest held in Conjunction with: USNC/URSI National Radio Science Meeting, Monterey, CA, United States Of America, 20 - 25 June 2004, vol.3, pp.2855-2858
- CXLII. **A readout circuit for QWIP infrared detector arrays using current mirroring integration**
Tepegöz M., Akin T.
29th European Solid-State Circuits Conference, ESTORIL, Portugal, 16 - 18 September 2003, pp.133-136
- CXLIII. **A Cross-Cultural VLSI Design Project**
Harris D., Akin T.
The American Society for Engineering Education (ASEE) 2003 Annual Conference, Tennessee, United States Of America, 22 June - 25 July 2003
- CXLIV. **A single-crystal silicon symmetrical and decoupled gyroscope on insulating substrate**
Alper S., Akin T.
12th International Conference on Solid-State Sensors, Actuators and Microsystems (TRANSDUCERS 03), Massachusetts, United States Of America, 8 - 12 June 2003, pp.1399-1402
- CXLV. **A low-cost 64x64 uncooled infrared detector array in standard CMOS**
Eminoglu S., Tanrikulu M., Akin T.
12th International Conference on Solid-State Sensors, Actuators and Microsystems (TRANSDUCERS 03), Massachusetts, United States Of America, 8 - 12 June 2003, pp.316-319
- CXLVI. **Low-cost uncooled infrared detector arrays in standard CMOS**
Eminoglu S., Tanrikulu M., Akin T.
Infrared Technology and Applications XXIX Conference, Florida, United States Of America, 21 - 25 April 2003, vol.5074, pp.425-436
- CXLVII. **Optimum Designs For High Performance Micromachined Gyroscopes**
ALPER S. E., AKIN T.
NATO RTO Sensors Electronics Technology (RTO-SET) Panel: Symposium on Emerging Military Capabilities Enabled by Advances in Navigation Sensors, 14 - 16 October 2002
- CXLVIII. **RF MEMS Teknolojisi ile Faz Dizili Anten**
TOPALLI K., SAĞKOL H., ÜNLÜ M., AYDIN ÇİVİ H. Ö., DEMİR Ş., KOÇ S. S., AKIN T.
URSI-Türkiye'2002, Turkey, 18 - 20 September 2002, pp.134-137
- CXLIX. **RF MEMS Teknolojisi ile Ayarlanabilir Empedans Uyumlama ve Güç Bölücü Devreleri**
ÜNLÜ M., SAĞKOL H., TOPALLI K., AYDIN ÇİVİ H. Ö., DEMİR Ş., KOÇ S. S., AKIN T.
URSI-Türkiye'2002, Turkey, 18 - 20 September 2002, pp.142-145
- CL. **A Symmetrical and Decoupled Microgyroscope with Electroforming Process on Insulating Substrate**
Akin T., Alper S. E.
European conference on solid-state transducers; Eurosensors XVI, Praha, Czech Republic, 15 - 18 September 2002, pp.471-472
- CLI. **Anten Uygulamaları için Yeni MEMS Anahtar Yapıları**
ÜNLÜ M., SAĞKOL H., TOPALLI K., AYDIN ÇİVİ H. Ö., DEMİR Ş., KOÇ S. S., AKIN T.

- URSI-Türkiye'2002, Turkey, 18 - 20 September 2002, pp.146-149
- CLII. **RF MEMS Teknolojisi ile Mikrodalga Faz Kaydiricilari**
SAĞKOL H., ÜNLÜ M., TOPALLI K., AYDIN ÇİVİ H. Ö., DEMİR Ş., KOÇ S. S., AKIN T.
URSI-Türkiye'2002, Turkey, 18 - 20 September 2002, pp.138-141
- CLIII. **Design of a Piezoelectric Ultrasonic Motor for Micro-Robotic Application**
Akn T., Koç B., Başaran D., Erden A.
Int. Conf. Mechatronic Design and Modeling, Nevşehir, Turkey, 2 - 05 September 2002, pp.205-219
- CLIV. **RF Telemetry Powering and Control of Hermetically-Sealed Integrated Sensors and Actuators**
Akn T., Ziaie B., Najafi K.
Digest, IEEE Solid-State Sensors and Actuators Workshop, South-Carolina, United States Of America, 4 - 07 June 1990, pp.145-148
- CLV. **A monolithic phased array with RF MEMS technology**
Sagkol H., Topalli K., Unlu M., AYDIN ÇİVİ H. Ö., KOÇ S. S., DEMİR Ş., AKIN T.
2002 IEEE Antennas and Propagation Society International Symposium, San Antonio, TX, United States Of America, 16 - 21 June 2002, vol.4, pp.760-763
- CLVI. **RF MEMS adjustable impedance matching network and adjustable power divider**
Unlu M., Topalli K., Sagkol H., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
2002 IEEE Antennas and Propagation Society International Symposium, San Antonio, TX, United States Of America, 16 - 21 June 2002, vol.2, pp.26-29
- CLVII. **New MEMS Swich Structures for Antenna Applications**
ÜNLÜ M., TOPALLI K., SAĞKOL H., DEMİR Ş., AYDIN ÇİVİ H. Ö., KOÇ S. S., AKIN T.
2002 IEEE AP-S International Symposium and USNC/URSI National Radio Science Meeting, 16 - 21 June 2002
- CLVIII. **A low-cost small pixel uncooled infrared detector for large focal plane arrays using a standard CMOS process**
Eminoglu S., Tanrikulu M., Tezcan D., Akin T.
Conference on Infrared Detectors and Focal Plane Arrays VII, Florida, United States Of America, 2 - 03 April 2002, vol.4721, pp.111-121
- CLIX. **A symmetric surface micromachined gyroscope with decoupled oscillation modes**
Alper S. E., AKIN T.
Transducers'01 Eurosensors XV, Munich, Germany, 10 - 14 June 2001, pp.347-358
- CLX. **A CMOS n-well microbolometer FPA with temperature coefficient enhancement circuitry**
Eminoglu S., Tezcan D., Akin T.
Infrared Technology and Applications XXVII Conference, Florida, United States Of America, 16 - 20 April 2001, vol.4369, pp.240-249
- CLXI. **A low cost uncooled infrared microbolometer focal plane array using the CMOS n-well layer**
Tezcan D., Eminoglu S., Akar O., Akin T.
14th IEEE International Conference on Micro Electro Mechanical Systems (MEMS 2001), INTERLAKEN, Switzerland, 21 - 25 January 2001, pp.566-569
- CLXII. **An uncooled microbolometer infrared focal plane array in standard CMOS**
Tezcan D., Eminoglu S., Akar O., Akin T.
Conference on Photodetectors - Materials and Devices VI, San-Jose, Costa Rica, 22 - 24 January 2001, vol.4288, pp.112-121
- CLXIII. **A CMOS Visible Image Sensor Array Using Current Mirroring Integration Readout Circuitry**
Akbay S. S., Bircan A., Akn T.
The 14th European Conf. on Solid-State Transducers (Eurosensors XIV), Kobenhavn, Denmark, 27 - 30 August 2000, pp.21-24
- CLXIV. **A Planar Gyroscope Using a Standard Surface Micromachining Process**
Alper S. E., Akn T.
The 14th European Conf. on Solid-State Transducers (Eurosensors XIV), Kobenhavn, Denmark, 27 - 30 August 2000, pp.387-390
- CLXV. **A High Performance Readout Circuit for Infrared Focal Plane Array Applications**

KÜLAH H., AKIN T.

Invited to Design Automation Conference 2000, 5 - 09 June 2000

- CLXVI. **An Uncooled Microbolometer Infrared Detector in any Standard CMOS Technology**
Tezcan D. S., Koçer F., Akin T.
The 10th Int. Conf. on Solid-State Sensors and Actuators (TRANSDUCERS'99), Sendai, Japan, 7 - 10 June 1999, pp.610-613
- CLXVII. **A low-power switched-current algorithmic A/D converter**
Tezel A., Akin T.
1999 IEEE International Symposium on Circuits and Systems (ISCAS 99), Florida, United States Of America, 30 May - 02 June 1999, pp.282-285
- CLXVIII. **An infrared FPA readout circuit based on Current Mirroring Integration**
Kulah H., Akin T.
Infrared Technology and Applications XXV Conference, Florida, United States Of America, 5 - 09 April 1999, vol.3698, pp.778-788
- CLXIX. **A CAD environment for digital filters using a VerilogHDL based functional bit-serial compiler**
Eminoglu S., AKIN T.
10th International Conference on Microelectronics, ICM 1998, Monastir, Tunisia, 14 - 16 December 1998, pp.91-94
- CLXX. **A CMOS current mirroring integration readout structure for infrared focal plane arrays**
Kulah H., Akin T.
24th European Solid-State Circuits Conference: Challenges for the Next Millennium, ESSCIRC 1998, The Hague, Netherlands, 22 - 24 September 1998, pp.468-471
- CLXXI. **Endüstriyel ve Biyomedikal Uygulamaları için Silisyum Mikroışlenmiş Kapasitif Basınç Sensörü**
AKAR O., AKIN T.
Elektrik-Elektronik-Bilgisayar Muhendisligi 7. Ulusal Kongresi, Turkey, 31 August - 06 September 1997, pp.83-86
- CLXXII. **Mikro Elektro Mekanik Sistemler MEMS ve Silisyum Mikroisleme Teknikleri**
AKIN T.
Elektrik-Elektronik-Bilgisayar Muhendisligi 7. Ulusal Kongresi, Turkey, 31 August - 06 September 1997
- CLXXIII. **Standart CMOS Teknolojisi ile Üretilen Isıküme Tipi Kızılötesi Dedektörler**
OLGUN Z., AKAR O., KÜLAH H., AKIN T.
Elektrik-Elektronik-Bilgisayar Muhendisligi 7. Ulusal Kongresi, Turkey, 31 August - 06 September 1997, pp.75-78
- CLXXIV. **PtSi Schottky Bariyer Gece Görüş Dedektörü ve CMOS Elektronik Okuma Devresi Tasarımı**
KÜLAH H., AKIN T.
Elektrik-Elektronik-Bilgisayar Muhendisligi 7. Ulusal Kongresi, Turkey, 31 August - 06 September 1997, pp.79-82
- CLXXV. **A modular micromachined high-density connector for implantable biomedical systems**
Akin T., Ziaie B., Najafi K.
IEEE 9th Annual International Workshop on Micro Electro Mechanical Systems - An Investigation of Micro Structures, Sensors, Actuators, Machines and Systems, California, United States Of America, 11 - 15 February 1996, pp.497-502
- CLXXVI. **An Implantable Multichannel Digital Neural Recording System for a Micromachined Sieve Electrode**
Akin T., Najafi K., Bradley R.
Digest, Int. Conf. on Solid-State Sensors and Actuators (TRANSDUCERS'95-EUROSENSORS'IX), Stockholm, Sweden, 25 - 29 June 1995, pp.51-54
- CLXXVII. **Chronic Recordings from Fibers of Rat Glossopharyngeal Nerve Regenerated Through a Micromachined Sieve Electrode Array**
BRADLEY R. M., AKIN T., GÜRKAN S., CAO X., NAJAFI K.
AChemS XVII (Ass. for Chemoreception Sciences), 19 - 23 April 1995
- CLXXVIII. **Long Term Recordings from a Micromachined Sieve Electrode Implanted in the Rat Glossopharyngeal Nerve.**
Bradley R., AKIN T., Gürkan S., Khalil N.
Digest, Society for Neuroscience, 13 - 18 November 1994
- CLXXIX. **A TELEMETRICALLY POWERED AND CONTROLLED IMPLANTABLE NEURAL RECORDING-SYSTEM**

WITH CMOS INTERFACE CIRCUITRY

AKIN T., NAJAFI K.

7th Mediterranean Electrotechnical Conference (MeleCON 94), Antalya, Turkey, 12 - 14 April 1994, pp.545-548

CLXXX. SILICON MICROMACHINING AND MICROFABRICATION TECHNIQUES FOR INTEGRATED SENSOR AND ACTUATOR SYSTEMS

AKIN T.

7th Mediterranean Electrotechnical Conference (MeleCON 94), Antalya, Turkey, 12 - 14 April 1994, pp.529-532

CLXXXI. A Micromachined Silicon Sieve Electrode for Nerve Regeneration Applications

AKIN T., NAJAFI K.

IEEE Int. Conf. on Solid-State Sensors and Actuators (TRANSDUCERS'xx91), 24 - 27 June 1991

Supported Projects

Akın T., Hoştut M., Özer S., TUBITAK Project, SWIR (1-3 μ M) Bandında Çalışacak In(Ga)As/Al(Ga)Sb/Ga(As)Sb Tip-li Süperörgü Dedektör Geliştirilmesi Projesi, 2021 - 2024

Akın T., Külâh H., Uysal E., TUBITAK Project, ENERJİ VERİMLİ GİYİLEBİLİR SENSÖR UYGULAMALRI İÇİN ESNEK TABANLI/MİNYATÜR ENERJİ TOPLAYICILAR VE ULTRA-DÜŞÜK GÜÇ İLE ÇALIŞAN ARAYÜZ ELEKTRONİĞİ GELİŞTİRİLMESİ, 2017 - 2020

ASİL ALPTEKİN D., ERTÜRK O., AKIN T., Project Supported by Higher Education Institutions, PbSe Koloidal Kuantum Noktacık Tabanlı Yüksek Çözünürlüklü, Kısa Dalga Boylu Kızılötesi Görüntüleme Sensörleri için Detektör Dizini Geliştirilmesi, 2017 - 2019

Külâh H., Akın T., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, ODTÜ MEMS Biyomedikal Uygulamalara Yönelik Altyapı, 2016 - 2019

Akın T., EU Supported Other Project, (SEERS) Snapshot spEctral imagEr for cost effective IR Surveillance, 2015 - 2018

Akın T., Project Supported by Defense Industry, TOPAZ, 2011 - 2017

AKIN T., Industrial Thesis Project, SANTEZ 01246 STZ 2012 1 Yüksek Performanslı 17 m Piksel Boyutlu Soğutmasız Kızılötesi Dedektör Geliştirilmesi, 2012 - 2015

Akın T., Külâh H., Industrial Thesis Project, SANTEZ 01375 STZ 2012 1 Düşük Frekanslı Çevresel Titreşimleri ve Radyo Dalgalarını Kullanan Hibrit Bir Enerji Üretici Geliştirilmesi, 2012 - 2015

Akın T., Project Supported by Defense Industry, TURKUAZ, 2011 - 2015

Akın T., Other International Funding Programs, MEMS Based Phase Shifter for X band Radar Applications, 2013 - 2014

AKIN T., Industrial Thesis Project, Yüksek Performanslı 17 um Piksel Boyutlu Soğutmasız Kızılötesi Dedektör Geliştirilmesi, 2012 - 2014

AKIN T., Industrial Thesis Project, Vakum Paketlenmiş MEMS Dönüölçer Duyargası ve CMOS Okuma Devresi Geliştirilmesi, 2011 - 2013

AKIN T., Industrial Thesis Project, Yüksek Etkin Alanlı ve Yüksek Performanslı Soğutmasız Kızılötesi Dedektör Geliştirilmesi, 2011 - 2013

AKIN T., TUBITAK Project, Acoustic Crosstalk Reduced 2 D Capacitive Micromachined Ultrasound Transducer Arrays with Diamond Membranes, 2010 - 2013

Akın T., Muhtaroglu A., TUBITAK Project, Düşük Voltajda Düşük Güç Üreten Yenilenebilir Enerji Kaynakları için Entegre DA DA Dönüştürücü ve Kontrol Tasarımı, 2010 - 2013

Akın T., FP7 Project, REGPOT METU MEMS RESEARCH AND APPLICATION CENTER METU MEMS, 2009 - 2013

Külâh H., Akın T., TUBITAK Project, Çip Üstü Laboratuvar Sistemleri İçin Tasarlanan Parylene Tabanlı Elektrostatik Mikro Kapakların Karakterizasyonu Ve İlaç Araştırma Yongalarında Uygulaması, 2011 - 2012

AKIN T., Other International Funding Programs, Methodolgy Development and Interface Design Based on Empirical Evaluation of Low Voltage Low Power MEMS Modules for Mobile Electronic System Integration, 2009 - 2012

KÜLAH H., AKIN T., TUBITAK Project, MEMS Teknolojisi Kullanılarak Klinik Tanı Uygulamaları İçin Ender Hücre Tarama Sistemi Geliştirilmesi, 2009 - 2012

Akın T., Okutucu Özyurt H. T., TUBITAK Project, Nano Akışkan Geçişli Mikrokanal Isı Alıcıların MEMS Teknolojisi ile Üretimi ve Mikroçip Soğutulmasında Kullanımı, 2009 - 2012

AKIN T., Project Supported by Other Private Institutions, Lastik Basıncı Gözlemlene Sistemleri Tire Pressure Monitoring Systems TPMS için Mikro Enerji Üretici Geliştirilmesi TOFAŞ, 2009 - 2012

Akın T., Project Supported by Other Official Institutions, Milimetre Dalga RF MEMS Üretim ve Test İmkanlarının Kazanılması, 2006 - 2012

Akın T., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Endüstriyel Mikro Elektro Mekanik Sistemler MEMS, 2002 - 2012

AKIN T., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Endüstriyel Mikro-Elektro-Mekanik Sistemler (MEMS), 2002 - 2011

AKIN T., TUBITAK Project, EU COST IC0603 Antenna Systems Sensors for Information Society Technologies, 2007 - 2010

Akın T., Bayram B., TUBITAK Project, Therapeutic Capacitive Micromachined Ultrasound Transducers with Diamond Membranes, 2007 - 2010

AKIN T., TUBITAK Project, SAVM013, 2006 - 2010

AKIN T., TUBITAK Project, SAVM001, 2006 - 2010

AKIN T., TUBITAK Project, TÜBİTAK 105A015 Kodlu 1007 Projesi MSB ArGe, 2006 - 2010

AKIN T., TUBITAK Project, TÜBİTAK 105A001 Kodlu 1007 Projesi MSB ArGe, 2006 - 2010

AKIN T., TUBITAK Project, RF MEMS Teknolojisi ile Faz Dizili Anten Yapımı, 2005 - 2010

AKIN T., Project Supported by Other Private Institutions, Si Tabanlı Tek Çok Kristal Güneş Hücresi Geliştirilmesi NUROL, 2008 - 2009

AKIN T., TUBITAK Project, MEMS Yapılar ve InP Tabanlı HEMT Transistörlerle Ayarlanabilir Yükselteç Hibrid Üretimi, 2007 - 2009

AKIN T., TUBITAK Project, Yonga Üzerinde Sistem Olarak Almaç Birimi Tasarımı ve Üretimi, 2005 - 2009

AKIN T., Project Supported by Other Official Institutions, Optik Okunaklı Soğutmasız Dedektör Teknolojileri Geliştirme, 2007 - 2008

AKIN T., TUBITAK Project, MEMS Based Energy Scavenging, 2005 - 2008

AKIN T., TUBITAK Project, Electrophoretic DNA Mutation Analysis Based on MEMS Technology, 2005 - 2008

Aydın Çivi H. Ö., Akın T., Koç S. S., Demir Ş., FP6 Project, AMICOM Advanced MEMS For RF and Millimeter Wave Communications Network of Excellence FP6, 2004 - 2007

AKIN T., TUBITAK Project, COST 284 Innovative Antennas for Emerging Terrestrial and Space based Applications, 2003 - 2006

Akın T., Aydın Çivi H. Ö., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Design and production of novel multi-function reconfigurable antenna/antenna arrays by micromachining technology, 2003 - 2005

AKIN T., TUBITAK Project, MEMS Teknolojisi ile RF Devre Elemanları Geliştirilmesi, 2001 - 2003

Akın T., TUBITAK Project, A Silicon Micromachined Gyroscope, 2000 - 2002

Akın T., TUBITAK Project, Uncooled Infrared Detector Development using MEMS and CMOS Technologies, 1999 - 2000

Beşikçi C., Akın T., NATO Supported Research Project, Integrated Sensors and Sensor Systems for Industrial Applications, 1996 - 2000

Akın T., NATO Supported Research Project, Integrated Microsensors and Sensor Systems for Industrial Applications, 1996 - 1999

Patent

Azgin K., Gavcar H. D., Akın T., Method for Suppression Of G-Sensitivity of MEMS Gyroscope, Patent, CHAPTER B Implementation of Operations; Transport, The Invention Registration Number: 2020 17869 T4 , 2020

Alper S. E., Torunbalcı M. M., Akın T., Hermetic packaging method for soi-mems devices with embedded vertical feedthroughs, Patent, CHAPTER B Implementation of Operations; Transport, The Invention Registration Number: TR 2017 04320 B , Standard Registration, 2020

Arduç M. S., Zorlu Ö., Külah H., Akın T., METHOD OF ENERGY HARVESTING USING BUILT-IN POTENTIAL DIFFERENCE OF METAL-TO-METAL JUNCTIONS AND DEVICE THEREOF, Patent, CHAPTER H Electricity, The Invention Registration Number: US10027254B2 , 2018, 2016

Alper S. E., Torunbalcı M. M., Akın T., METHOD OF WAFER-LEVEL HERMETIC PACKAGING WITH VERTICAL

FEEDTHROUGHS,, Patent, CHAPTER B Implementation of Operations; Transport, The Invention Registration Number: ZL 201380079417.5 , 2018, 2017, 2016

Akın T., Eminođlu S., Uncooled Infrared Detector And Methods For Manufacturing The Same, Patent, CHAPTER G Physics, The Invention Registration Number: 2,800,847 , 2015, 2018

Kuzubařlı A., Demir ř., Akın T., Microfluidic channel integrated microwave mems biosensor, Patent, CHAPTER H Electricity, The Invention Recourse Number: EP15777752.5 , Standard Registration, 2015

Aydemir A., Akın T., A THREE AXIS CAPACITIVE MEMS ACCELEROMETER ON A SINGLE SUBSTRATE, Patent, CHAPTER G Physics, The Invention Registration Number: EP 3 241 027 B1 , Standard Registration, 2014, 2023

Akın T., Ünlü M., Demir ř., SIMULTANEOUS PHASE AND AMPLITUDE CONTROL USING TRIPLE STUB TOPOLOGY AND ITS IMPLEMENTATION USING RF MEMS TECHNOLOGY, Patent, CHAPTER H Electricity, The Invention Registration Number: 2012 02917 , 2012, 2013

Scientific Refereeing

Completed Thesis Study, TÜRKİYE TEKNOLOJİ GELİřTİRME VAKFI 2018 DR. AKIN ÇAKMAKÇI ÖDÜLÜ, TTGV, Turkey, November 2018

Completed Thesis Study, TÜRKİYE TEKNOLOJİ GELİřTİRME VAKFI TTGV ÖDÜLLERİ 2018 DR. AKIN ÇAKMAKÇI ÖDÜLÜ, TTGV, Turkey, November 2018

Completed Thesis Study, TÜRKİYE TEKNOLOJİ GELİřTİRME VAKFI 2018 DR. AKIN ÇAKMAKÇI ÖDÜLÜ, TTGV, Turkey, November 2018

Tasks In Event Organizations

Akın T., SPIE Defense & Commercial Sensing Symposium, Infrared Technology and Applications XLV, Scientific Congress, Maryland, United States Of America, Nisan 2019

Akın T., SPIE Defence and Commercial Sensing Symposium, Infrared Technology and Applications XLIV, Scientific Congress, Florida, United States Of America, Nisan 2018

Mobility Activity

Improving Competencies and Qualifications, Other, NTHU, Taiwan, 2018 - 2018

Metrics

Publication: 253

Citation (WoS): 2825

Citation (Scopus): 3931

H-Index (WoS): 27

H-Index (Scopus): 31

Congress and Symposium Activities

"MEMS 2020 , The 33rd IEEE International Conference on Micro Electro Mechanical Systems ", Invited Speaker, Vancouver, Canada, 2020

21 st Milipol Paris 2019, Audience, Paris, France, 2019

ELEKTRİK-ELEKTRONİK MÜHENDİSLİđİ KONGRESİ 2019 , Invited Speaker, İstanbul, Turkey, 2019

ELEKTRİK-ELEKTRONİK MÜHENDİSLİđİ KONGRESİ 2019, Session Moderator, İstanbul, Turkey, 2019

30th AMC-Asian Advanced Materials , Attendee, Singapore, Singapore, 2019
TEKNOFEST 2019, Attendee, İstanbul, Turkey, 2019
20th International Conference on Solid-State Sensors, Actuators and Microsystems, Transducers 2019, Audience, Berlin, Germany, 2019
2018 43rd International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz), Attendee, Nagoya, Japan, 2018
International Security and Defence Conference, Invited Speaker, Ankara, Turkey, 2018
SEDEC (SECURITY & DEFENCE CONFERENCE) 2018, Working Group, Ankara, Turkey, 2018
National NanoFab Center” da gerçekleştirilecek olan 3. Eureka Project’in “Development and Implementation of MEMS and CMOS based on the uncooled infrared detectors” konulu çalıştay, Working Group, Seoul, South Korea, 2018
SPIE Photonics West, Audience, California, United States Of America, 2018

Invited Talks

Çukurova Üniversitesi 2019-2020 Akademik Yılı açılış töreninde, açılış dersini vermek üzere davetli olarak katılım,, Seminar, Çukurova Üniversitesi, Turkey, September 2019
Turkey-Taiwan Electronics and Optoelectronics Semiconductor, Seminar, TÜBİTAK, Turkey, June 2019
BURSA ULUDAĞ ÜNV. PROF. DR. FUAT SEZGİN VIII. BİLGİLENDİRME VE AR-GE GÜNLERİ, Seminar, Bursa Uludağ Üniversitesi, Turkey, March 2019
18th China International Optoelectronic Expo 2016” içindeki “1st Executive Infrared Imaging Forum : From Niche to Large Volume Applications” isimli etkinlik, Seminar, Yole Development , China, September 2016
20th NanoEngineering and MicroSystem Technology Conference (NMC’16) , Conference, 20th NanoEngineering and MicroSystem Technology Conference (NMC’16) , Taiwan, August 2016
Infrared Array Sensor Forum, Seminar, Ritsumeikan Üniversitesi, Japan, July 2016

Awards

Akın T., Mikroelektronik ve Mikrosensörler Konusundaki Özgün Çalışmalar, Orta Doğu Teknik Üniversitesi, June 1996

Non Academic Experience

METU

METU

ASELSAN

TUBITAK-BILTEN

METU

METU

The University of Michigan Electrical

The University of Michigan Electrical

ASELSAN Inc.