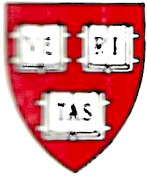


Eighth International Symposium on Space Terahertz Technology

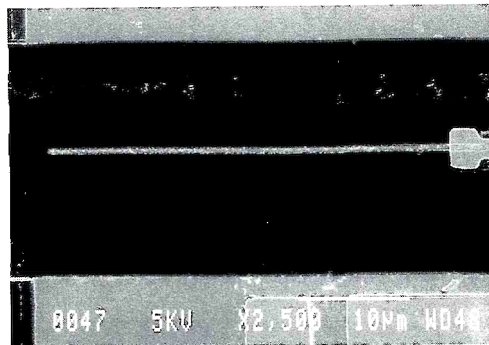
March 25 - 27, 1997

Science Center
Harvard University
Cambridge, Massachusetts, USA

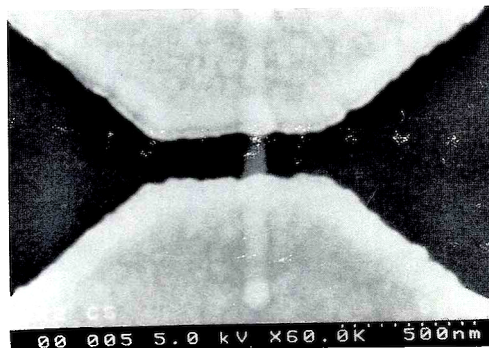
JPL



PROCEEDINGS



Distributed SIS Mixer



Hot Electron Bolometer Mixer

Sponsored by JPL Center for Space Microelectronics Technology and
Harvard University

Organized by Harvard-Smithsonian Center for Astrophysics

PROCEEDINGS
of the
EIGHTH INTERNATIONAL SYMPOSIUM ON
SPACE TERAHERTZ TECHNOLOGY

Tuesday - Thursday March 25 - 27, 1997

**Science Center
Harvard University
Cambridge, Massachusetts**

Sponsored by: JPL Center for Space Microelectronics Technology and
Harvard University

Organized by: Harvard-Smithsonian Center for Astrophysics

Organizing Committee

Raymond Blundell, Harvard-Smithsonian Center for Astrophysics
Edward Tong, Harvard-Smithsonian Center for Astrophysics

PREFACE

The Eighth International Symposium of Space Terahertz Technology was held at the Harvard University Science Center in Cambridge, Massachusetts, on March 25-27, 1997. The Symposium was attended by more than 140 scientists and engineers from all over the world. The theme of the Symposium centered on the detection, generation, and manipulation of radiation in the terahertz spectral region for both space- and ground-based applications including astronomy and remote sensing of the Earth's atmosphere. The program included twelve sessions covering a wide variety of topics including: Schottky, SIS, and hot electron bolometer mixers; local oscillator sources, either fundamental, varactor frequency multiplied or generated from heterodyne downconversion; and various new developments in optics, antennas, and waveguide devices. In addition, there were invited presentations that outlined the recent progress and future opportunities in ground-based, airborne, and spaceborne observatories for submillimeter astronomy.

The Symposium was sponsored by the NASA Office of the Center for Space Microelectronics Technology, Jet Propulsion Laboratory and was organized by the Harvard-Smithsonian Center for Astrophysics. We would like to thank all of the participants of the Eighth International Symposium of Space Terahertz Technology, in particular the session chairs whose work helped to make the event a success. We would also like to thank Harvard University for the use of the meeting facilities.

The Ninth International Symposium on Space Terahertz Technology will be held in Pasadena, CA, and will be hosted by the Center for Space Microelectronics Technology, Jet Propulsion Laboratory, on March 17-19, 1998.

*Edward Tong
Raymond Blundell*

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The SEM photographs on the front cover, showing a 150 nm wide distributed SIS device and a 80 x 80 nm niobium HEB device, are supplied by Bruce Bumble (JPL Center for Space Microelectronics Technology).

EIGHTH INTERNATIONAL SYMPOSIUM ON SPACE TERAHERTZ TECHNOLOGY

Tuesday - Thursday, March 25-27, 1997

Science Center
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Sponsored by: JPL Center for Space Microelectronics Technology and Harvard University

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DAY 1: TUESDAY, MARCH 25

Opening Session Chair: Raymond Blundell

Opening Remarks	Carl Kukkonen	JPL	8
Submillimeter Astronomy - The Next Steps	K. Menten	MPIfR	

Session 1: HEB 1 Chair: Anthony Kerr

Phonon-Cooled NbN HEB Mixers for Submillimeter Wavelengths	J. Kawamura, R. Blundell, C-Y.E. Tong, G. Gol'tsman, E. Gershenzon, B. Voronov S. Cherendichenko	SAO MSPU	23
Phonon-Cooled Ultra Thin NbN Hot Electron Bolometer Mixers at 620 GHz	H. Ekström, E. Kollberg, P. Yagubov, G. Gol'tsman, E. Gershenzon, S. Yngvesson	CTH MSPU U.Mass.	29
Superconducting Transition and Heterodyne Performance at 730 GHz of a Diffusion-Cooled Nb Hot-Electron Bolometer Mixer	J.R. Gao, M.E. Glastra, R.H. Heeres, W. Hulshoff, D.W. Floet, H. van de Stadt, T.M. Klapwijk, Th. de Graauw	U.Groningen SRON	36
Noise and RF Bandwidth Measurements of a 1.2 THz HEB Heterodyne Receiver	A. Skalare, W.R. McGrath, B. Bumble, H.G. LeDuc	JPL	47
A Low-Noise Superconductive Nb Hot-Electron Mixer at 2.5 THz	B.S. Karasik, M.C. Gaidis, W.R. McGrath, B. Bumble, H.G. LeDuc	JPL	55
Conversion Loss of a Resistive State Superconducting Mixer	O. Vendik, E. Kollberg	Etech.U. CTH	67

Session 2: SIS I		Chair: Erik Kollberg	
Analysis of the Bandwidth Performance of SIS Mixers with Distributed Junction Arrays	S.-C. Shi, T. Noguchi, J. Inatani	NRO	81
Numerical Modeling of the Quasiparticle Non-Linear Transmission Line	C.-Y.E. Tong, L. Chen, R. Blundell	SAO U.Chicago	91
Determining Input Loss in SIS Receivers	C.E. Honingh, S. Haas, D. Hottgenroth, K. Jacobs, J. Stutzki	U.Koln	92
Receiver Noise Temperature, the Quantum Noise Limit, and the Role of the Zero-Point Fluctuations	A.R. Kerr, M.J. Feldman, S.-K. Pan	NRAO U.Rochester	101
Session 3: Sources 1		Chair: Tom Crowe	
Second-Harmonic Broad-Band 60-200 GHz InP Transferred Electron Device and Oscillators	S.H. Jones, M.F. Zybura, J.E. Carlstrom, T. O'Brien	U.Va. Litton U.Chicago	112
Why Don't Back-to-Back Abrupt Junction Frequency Triplers Work?	R.F. Bradley, A.R. Kerr, N.R. Erikson	NRAO FCRAO	127
Wideband Fixed-Tuned Millimeter and Submillimeter-Wave Frequency Multipliers	N.R. Erikson	Millitech	137
Monolithic Schottky-Collector Resonant Tunnel Diode Oscillator Arrays to 650 GHz	M. Reddy, S.C. Martin, A.C. Molnar, R.E. Muller, R.P. Smith, P.H. Siegel, M.J. Mondry, M.J.W. Rodwell, S.J. Allen, Jr.	UCSB JPL	149
Fiber-Coupled Photomixers Operating at Cryogenic Temperatures	S. Verghese, K.A. McIntosh, E.R. Brown	Lincoln Lab	162

DAY 2: WEDNESDAY, MARCH 26**Session 4: Semiconductors****Chair: Neal Erickson**

Accurate Circuit and Device Equations for Designing 50-600 GHz GaAs Schottky Diode Varactor Frequency Doublers	R.E. Lipsey, S.H. Jones, T.W. Crowe	U.Va.	166
Fabrication and Optimisation of Planar Schottky Diodes	A. Simon, C.I. Lin, H.L. Hartnagel, P. Zimmermann, R. Zimmermann	Inst.Hochfreq. Rad.Physics	179
Advances in Submillimeter Wave Semiconductor-Based Device Designs and Processes at JPL	R.P. Smith, S.C. Martin, M. Kim, J. Bruston, D. Humphrey, N. Erickson, P.H. Seigel	JPL FCRAO	184
Fixed-Tuned Submillimeter Waveguide Multipliers Using MMIC Technology	J. Bruston, R.P. Smith, S.C. Martin, A. Pease, M. Kim, P.H. Seigel	JPL	198
Planar GaAs Schottky Barrier Diodes	S.M. Marazita, W.L. Bishop, T.M. Cunningham, P.J. Koh, T.W. Crowe, R.M. Weikle, II	U.Va.	208
Substrateless Schottky Diodes for THz Applications	C.I. Lin, A. Simon, M. Rodriguez-Gironés, H.L. Hartnagel, P. Zimmermann, R. Zimmermann	Inst.Hochfreq. Rad.Physics	224

Session 5: HEB II**Chair: Rob McGrath**

Fabrication of High-Tc Hot-Electron Bolometric Mixers for Submillimeter Heterodyne Applications	M.J. Burns, A.W. Kleinsasser, B. Karasik, M. Gaidis, W.R. McGrath	JPL	230
Large Bandwidth of NbN Phonon-Cooled Hot-Electron Bolometer Mixers on Sapphire Substrates	S. Cherednichenko, P. Yagoubov, K. Il'in, G. Gol'tsman, E. Gershenzon	MSPU	245
NbN Hot Electron Bolometric Mixer for 2.5 THz: The Phonon Cooled Version	E. Gerecht, C.F. Musante, Z. Wang, K.S. Yngvesson, J. Waldman, G.N. Golts'man, P.A. Yagoubov, S.I. Svechnikov, B.M. Voronov, S.I. Cherednichenko, E.M. Gershenzon	U.Mass. MSPU	258
Noise-Bandwidth of Diffusion Cooled Hot-Electron Bolometers	P.J. Burke, R.J. Schoelkopf, D.E. Prober, A. Sklare, W.R. McGrath, B. Karasik, M. Gaidis, B. Bumble, H.G. LeDuc	Yale JPL	272

Session 6: SIS II		Chair: Marc Feldman	
A Submillimeter SIS Receiver Cooled by a Compact Stirling-JT Refrigerator	J. Inatani, T. Noguchi, S.C. Shi, K. Miyazawa, H. Masuko, S. Ochiai, Y. Irimajiri, M. Kyoya, K. Narasaki, S. Tsunematsu, M. Murakami, D. Okamoto	NRO CRL Sumitomo U.Tsukuba	273
Study of a Quasioptical Superconducting Integrated Receiver for Imaging Applications at 400-700GHz	S.V. Shitov, V.P. Koshelets, A.M. Baryshev, L.V. Filippenko, W. Luinge, J.-R. Gao, P. Lehtikainen	IREE SRON U.Groningen HUT	281
Performance Limitations of NbN SIS Junctions with Al Striplines at 600 - 850 GHz	P. Dieleman, T.M. Klapwijk, H. van de Stadt, M. Schicke, B. Plathner, K.H. Gundlach	U.Groningen SRON IRAM	291
All-NbN Quasi-Optical SIS Mixers at Terahertz Frequencies	Y. Uzawa, Z. Wang, A. Kawakami	CRL	301
Low-Loss NbTiN Films for THz SIS Mixer Tuning Circuits	J.W. Kooi, J.A. Stern, G. Chattopadhyay, H.G. LeDuc, B. Bumble, J. Zmuidzinas	CalTech JPL	310
Session 7: Waveguide Devices		Chair: Edward Tong	
Design, Analysis and Scale Model Testing of Fixed-Tuned Broadband Waveguide to Microstrip Transitions	J.L. Hesler, K. Hui, R.M. Weikle, II, T.W. Crowe	U. Va.	319
An Investigation of the Input Impedance of a Microstrip Probe in Waveguide	S. Withington, G. Yassin	U.Cambridge	326
Electromagnetic Analysis of Finline Mixers	G. Yassin, S. Withington, R. Padman	U.Cambridge	344
Injection Locked 100 GHz LO Network for a 32 Channel 220 GHz Imaging Array	I. Galin, D.S. Zacharias	Gencorp ZAX	355
Laser Micromachining of Silicon: A New Technique for Fabricating High Quality Terahertz Waveguide Components	C.K. Walker, G. Narayanan, H. Knoepfle, J. Capara, J. Glenn, A. Hungerford, T.M. Bloomstein, S.T. Palmacci, M.B. Stern, J.E. Curtin	Steward Obs. Lincoln Lab	358
Inexpensive Receiver Components for Millimeter and Submillimeter Wavelengths	T.W. Crowe, P.J. Koh, W.L. Bishop, C.M. Mann, J.L. Hesler, R.M. Weikle, II, P.A.D. Wood, D. Matheson	U.Va. Rutherford Lab	377

DAY 3: THURSDAY, MARCH 27

Session 8: SOURCES II**Chair: Jacob Kooi**

The Complete Analysis of a 91.33 to 274 GHz Schottky Barrier Varactor Frequency Tripler	R.E. Lipsey, C. Mann, S.H. Jones, J. Thornton	U.Va. Rutherford Lab	385
Power and Spatial Mode Measurements of a Sideband Generator Submillimeter-Wave Source	E.R. Mueller, J. Waldman, W.E. Nixon	DeMaria U.Mass. USA NGIC	404
Terahertz Emission from <i>p</i> -Type Germanium Lasers Doped with Novel Acceptors	O.D. Dubon, D.R. Chamberlin, W.L. Hansen, E.E. Haller, L.A. Reichertz, G. Sirmain, E. Bründermann, A.M. Linhart, H.P. Röser	UCB DLR ISST	423
Tunable THz-laser for applications in FIR Astronomy	E. Bründermann, A.M. Linhart, L.A. Reichertz, G. Sirmain, H.P. Röser, O.D. Dubon, D.R. Chamberlin, W. L. Hansen, E.E. Haller	DLR ISST UCB	430
Investigations of High-Resistivity, Undoped GaP Crystal for Quasi-Phasematched Difference Frequency Generation to Produce Terahertz Frequency Local Oscillators	G. Herman, S. Sandford	SAIC NASA	436

Session 9: Optics**Chair: Scott Paine**

Investigation of Surface Profiles of a Reflector from Near-field Beam Measurements	M.T. Chen, C.-Y.E. Tong	ASIAA SAO	437
Modal Analysis of Partially-Coherent Submillimetre-Wave Quasioptical Systems	S. Withington, J.A. Murphy	U.Cambridge St. Patrick's	446
Gaussian Beam Mode Analysis of Imaging Arrays	J.A. Murphy, S. Withington	St. Patrick's U.Cambridge	466
LO Beam Array Generation at 480 GHz by Use of Phase Gratings	T. Klein, G.A. Ediss, R. Güsten, H. Hauschildt, C. Kasemann	MPfIR	482
Hologram CATR for Millimeter and Submillimeter-Wavelengths: A Progress Report	T. Hirvonen, P. Piironen, J. Ala-Laurinaho, A. Lehto, A.V. Räisänen	HUT	490

Section 10: Receivers	Chair: David Woody
------------------------------	---------------------------

The IRAM 230 GHz Multibeam SIS Receiver	K.F. Schuster, J. Blondel, M. Carter, A. Karpov, J. Lamb, B. Lazareff, F. Mattiocco, S. Navarro, J.-L. Pollet	IRAM	499
A Superconducting Submillimeter Wave Limb Emission Sounder (SMILES) on the Japanese Experimental Module (JEM) of the Space Station for Observing Trace Gases in the Middle Atmosphere	H. Masuko, S. Ochiai, Y. Irimajiri, J. Inatani, T. Noguchi, Y. Iida, N. Ikeda, N. Tanioka	CRL NRO TSC NASDA	505
Development of a 170-210 GHz 3x3 Micromachined SIS Imaging Array	G. de Lange, Q. Hu, H. Huang, A.W. Lichtenberger	RLE-MIT U.Va.	518
Preliminary Design of a 650 GHz Subharmonically Pumped Mixer with Quasi-Vertical Schottky Diodes	V.S. Möttönen, J. Zhang, P.V. Piironen, J.T. Louhi, A.O. Lehto, A. Simon, C.-I. Lin, A.V. Räisänen	HUT Inst.Hochfreq.	530

Section 11: Detectors	Chair: Sigfrid Yngvesson
------------------------------	---------------------------------

BIB Photoconductive Mixers	A.L. Betz, R.T. Boreiko	U. Colorado	538
The Single-Mode Monolithic Silicon Bolometer as an Ultrasensitive Detector for Millimeter Wavelengths	K. Farooqui, J.O. Gundersen, P.T. Timbie, G.W. Wilson, J.-W. Zhou, C.A. Allen, T.C. Chen, S.H. Moseley, D.B. Mott	Brown U.Wisconsin PES NASA	546
Waveguide Coupled Bolometers	J. Peterson, D. Osterman	CMU Hypres	556
Mixing Experiments at W-Band Using High-Tc Josephson Junctions	O. Harnack, M. Darula, S. Beuven, H. Kohlstedt	IfSI, Jülich	557

Session 12: Late Papers	Chair: Raymond Blundell
--------------------------------	--------------------------------

A Quasioptical SIS Receiver with Normal Metal Tuning for the 800-900 GHz Band	F. Schäfer, P. van der Wal, E. Kreysa, K.H. Gundlach	MPIfR IRAM	566
SIS Junction As a Direct Detector at 850 μ m Wavelength	A. Karpov, J. Blondel, M. Voss, K.H. Gundlach	IRAM	575

Authors and Registered Participants	579
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