

# Journal of Integrated Circuits and Systems

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A Review of SOI Technology and its Applications

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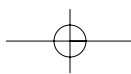
Time-of-Flight Flow Microsensor using Free-Standing Microfilaments

Roberto Jacobe Rodrigues, Rogério Furlan



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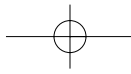
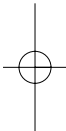
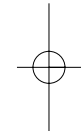


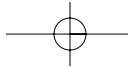
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The **Journal of Integrated Circuits and Systems (JICS)** is a publication from SBMicro – Brazilian Microelectronics Society and SBC – Brazilian Computer Society whose are non-profit scientific societies aiming to foster the microelectronics and computer science teaching, research and development.

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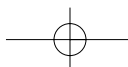
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## CONTENTS

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Foreword.....	49
A Review of SOI Technology and its Applications Bich-Yen Nguyen, George Celler, Carlos Mazuré .....	51
Mobility Modeling in Advanced MOSFETs with Ultra-Thin Silicon Body under Stress Viktor A. Sverdlov, Thomas Windbacher, Franz Schanovsky, Siegfried Selberherr .....	55
Investigation of the Gate Length and Drain Bias Dependence of the ZTC Biasing Point Instability of N- and P-Channel PD SOI MOSFETs L. M. Camillo, J. A. Martino, E. Simoen, C. Claeys .....	61
Analysis of Electromigration in Dual-Damascene Interconnect Structures Roberto Lacerda de Orio, Hajdin Ceric, Siegfried Selberherr.....	67
Waferlevel Vacuum Packaged Microscanners: A High Yield Fabrication Process for Mobile Applications Marten Oldsen, Ulrich Hofmann, Joachim Janes, Hans-Joachim Quenzer, Bernd Wagner .....	73
Preparation and Characterization of Electrodeposited Co/p-Si Schottky Diodes R. Zandonay, R. G. Delatorre, A. A. Pasa .....	79
Time-of-Flight Flow Microsensor using Free-Standing Microfilaments Roberto Jacobe Rodrigues, Rogério Furlan .....	84

## FOREWORD

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This issue of Journal of Integrated Circuits and Systems (JICS) includes papers on process, materials, devices, and modeling. These papers have been selected from the presentations given at SBMicro2008 (23<sup>rd</sup> Symposium on Microelectronics Technology and Devices), which has been held in Gramado, Brazil in 2008. Among the contributions presented at SBMicro2008 conference, only a few best rated by the reviewers were selected by the JICS Editorial Board and have been invited to submit an extended version. These papers have been submitted to usual reviewing process with the help of external experts. An invited paper from Dr. Carlos Mazure on SOI technology and its applications is included in this issue and also spontaneous submissions have been considered.

We would like to thank the authors for their effort in preparing these high quality papers, as well as the reviewers for their help on paper selection, which guarantees the scientific level of this issue. We sincerely hope that JICS readers will enjoy these contributions.

João Antonio Martino  
*JICS Editor-in-chief*

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### *Text Layout:*

The manuscript must be typed using double spacing and wide A4 paper (3 cm) margins (Top, Bottom, Left, Right) with 12 pt Times New Roman font size up to 18 pages (maximum). Present tables and figure legends on separate pages at the end of the manuscript. All the manuscript pages must be numbered consecutively.

### *Abstract:*

A self-contained abstract outlining in a single paragraph the aims, scope and conclusions of the paper must be supplied.

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Immediately after the abstract, please provide a maximum of six keywords (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible.

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As there is considerable variation in nomenclature and unit systems from country to country, authors are required to include a list of symbols, which they have used in their manuscripts, and of the units in which the corresponding qualities are measured. Another possibility is to define the symbols along the manuscript. SI units should be used where possible.

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Follow internationally accepted rules and conventions: use the international system of units (SI). If other quantities are mentioned, give their equivalent in SI.

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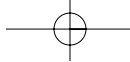
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All publications cited in the text should be presented in a list of references following the text of the manuscript. Along the text, indicate references by number(s) in square brackets in line with the text.

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## 25th Symposium on Microelectronics Technology and Devices

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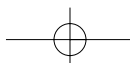
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Call for Papers

The **SBMicro** symposium is an international forum dedicated to fabrication and modeling of microsystems, integrated circuits and devices, held annually in Brazil. The goal of the symposium is to bring together researchers in the areas of processing, materials, characterization, modeling and TCAD of integrated circuits, microsensors, microactuators and MEMS. The **SBMicro 2010** will be located in **Sao Paulo, Brazil**. This international conference offers a unique blend of microelectronics and serves as a major conference for the discussion of interdisciplinary research around the world through a variety of formats, such as oral presentations, poster sessions, exhibits, panel discussions, and tutorial sessions. The best papers presented at the symposium will be invited to resubmit an extended version that will be considered for publication at the JICS - Journal of Integrated Circuits and Systems and at the Journal of the Electrochemical Society. **SBMicro 2010** will occur in the same venue as SBCCI2010- 23rd Symposium on Integrated Circuits and Systems Design.

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- Microsystems
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- Photovoltaic process technology
- Technology roadmaps
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**SBMicro 2010** will receive camera-ready submissions in English for consideration by the Program Committee with a maximum of 8 pages. Submission paper format details for **SBMicro 2010** are available at the conference website [www.sbmicro.org.br/sbmicro](http://www.sbmicro.org.br/sbmicro). Simultaneous submissions or submissions of previously published papers will not be considered. The Program Committee will only accept electronic submission in PDF format via the conference website. The **SBMicro 2010** proceedings will be published by The Electrochemical Society, Inc.

#### Location:

**Sao Paulo** (Sampa), a metropolis with more than 15 million people, is the business and cultural heart of Brazil. Sao Paulo is a very diverse city with large concentrations of immigrants from Italy, Japan, Portugal, Spain, Germany and many other countries. Sao Paulo offers many attractions ranging from historic monuments, museums, music festivals, shopping, and a very dynamic nightlife with a wide range of nightclubs, bars and restaurants, arguably second to none in the world. Within easy reach from Sao Paulo the visitor will find a coastline filled with beautiful beaches as well as ecological parks. Rio de Janeiro can be reached in less than an hour through regular shuttle flights. Iguazu Falls is also about an hour flight from Sao Paulo.

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