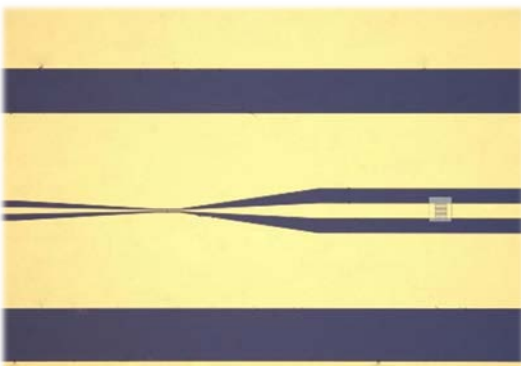


SIA and SRC release Interim Report on the Decadal Plan for Semiconductors, a pivotal roadmap outlining research priorities in Information and Communication Technologies [Read more](#) »



Three SRC researchers recognized as 2020 Intel Rising Stars

Three active SRC researchers have been selected as recipients of Intel's 2020 Rising Star Award, which recognizes early career faculty that show great promise in developing future computing technologies. The program also fosters long-term collaborative relationships with senior technical leaders at Intel. Congratulations to Assistant Professors [Asif Khan](#) (Georgia Tech), [Baris Kasikci](#) (Univ. of Michigan), and [Jaydeep Kulkarni](#) (Univ. of Texas/Austin)! [Read more](#) »



ASCENT research collaboration breaks magnetic memory speed record

In a paper published in *Nature Electronics*, Prof. Jeff Bokor of UC/Berkeley and collaborators reported a new technique for magnetization switching, the process used to "write" information into magnetic memory. Measured at 6-picosecond intervals, their technique is nearly 100 times faster than state-of-the-art spintronic devices. The advance could lead to the development of ultrafast magnetic memories that would retain data even without power. Read more [here](#) and [here](#) » SRC members see task [2776.023](#) »



Annual TxACE Symposium recordings now available

The October 19th TxACE Symposium recordings are now available. The keynote was given by Dr. Arjang Hassibi, Founder and CEO of Insilixa. The panel session was organized by Prof. Pavan Hanumolu (UIUC), moderated by Prof. Naresh Shanbhag (UIUC) and included perspective on IC design in the era of deep learning from Dr. Tanay Karnik (Intel), Dr. Mahesh Mehendale (TI), Prof. Naveen Verma (Princeton), and Dr. Todd Younkin (SRC). [Read more](#) »



Wriddhi Chakraborty takes 2020 VLSI Best Student Paper Award for 3DIC Technology

Chakraborty received the Best Student Paper Award for his paper titled “*BEOL Compatible Dual-Gate Ultra Thin-Body W-Doped Indium-Oxide Transistor with $I_{on}=370 \mu A/\mu m$, $SS=73 mV/dec$ and $I_{on}/I_{off}>4E9$.*” Now in his third year as a Ph.D. student at Notre Dame, Chakraborty is advised by Prof. Suman Datta and supported by two SRC Centers - [ASCENT](#), one of six Centers under JUMP, and [IMPACT](#), an nCORE Center. Wriddhi will receive a travel grant to the [2021 VLSI Symposia on Technology and Circuits](#) in Kyoto, Japan, in June 2021 along with a certificate that will be presented during the awards ceremony. Well done! [Read more](#) »



CRISP PI Jason Cong appointed Volgenau Chair for Engineering Excellence in Samueli School of Engineering

Prof. Cong joined the UCLA faculty in 1990. He is the Director of Center for Domain-Specific Computing (funded by an NSF Expeditions in Computing Award) and the Director of VLSI Architecture, Synthesis, and Technology (VAST) Laboratory. From 2005 to 2008, he served as the chair of the UCLA Computer Science Department. His research interests include electronic design automation, customized computing, quantum computing, and highly scalable algorithms. He is a Fellow of ACM and IEEE and a member of National Academy of Engineering.

NATURE ELECTRONICS

PERSPECTIVE

Time to switch to ferroelectrics?

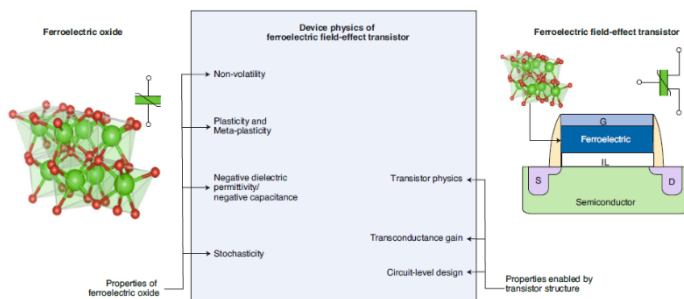


Fig. 1 | Device physics of ferroelectric field-effect transistors. A FEFET combines the rich physics of ferroelectric materials with the device physics of transistors. IL, Interfacial layer.

ASCENT researchers Asif Khan (Georgia Tech), Ali Keshavarzi (Stanford) and Suman Datta (Notre Dame) discuss in a *Nature Electronics* paper how hafnium oxide has made ferroelectric field-effect transistors a viable technology for the advanced microelectronics industry – offering a new approach to electronic devices they term ferroelectronics. In summary “*Ferroelectric field-effect transistors could play a key role in the development of data-centric computing hardware and shaping the future of computing itself!*” [Read more](#) »

Request for Information in BioElectronic Medicine closes November 9th, 2020

SRC recently announced a Request for Information (RFI) in BioElectronic Medicine (BEM) as it is considering opportunities for creating a funded research program to develop technologies to help solve the problems outlined in the BioElectronic Medicine roadmap, [here](#). Do you have concepts for associated research topics? Particular areas of interest include, but are not limited to, neuromodulation along with electronic therapies targeting diabetes, pain management, movement disorders (epilepsy, Parkinson's), and incontinence. The RFI closes on November 9th, 2020. Learn more [here](#) »

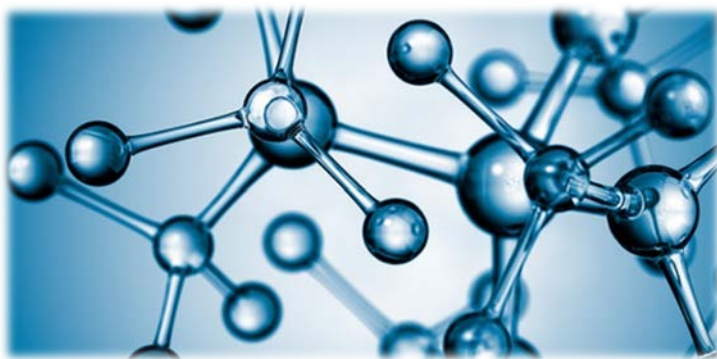
Researchers at UCSB establish approaches to selective deposition via spin dewetting

[Prof. Bates' research group](#) submitted a 3-year report that analyzes the selective spin-on deposition of polymers onto SiO₂, Cu, TiN and Si₃N₄. In the report, two approaches were developed, both of which exploit preferential dewetting to selectively deposit polymer via spin coating to cover only certain regions of heterogeneous substrates. Lessons learned from this work relating to design variables, pattern dimensions, and selectivity will provide a pathway towards higher resolutions. Prof. Bates anticipates that these approaches will prove enabling for applications that necessitate simple control over the spatial distribution of polymers. SRC members can access unpublished insight [here](#) »

BioElectronic Medicine Request for Information

Deadline 5 PM EDT Nov 9 2020

RFI



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