



**Fluorescence activated cell sorting via a focused traveling surface acoustic beam**

*Lab on a Chip*

SUTD Authors: Zhichao Ma, Yinning Zhou, Collins, David J. Collins and Ye Ai

"We have developed a benchtop scale fluorescence activated cell sorting (FACS) system that makes use of a highly focused traveling surface acoustic beam ( $\sim 50 \mu\text{m}$ ) for highly accurate single cell level sorting with excellent biocompatibility. The ability to precisely manipulate single biological cells offers unprecedented capabilities of single-cell mutation analysis, which is an enabling technology towards precision medicine."

---Ai Ye



**Silicon rich nitride ring resonators for rare-earth doped telecommunications-band amplifiers pumped at the O-band**

*Scientific Reports*

SUTD Authors: Peng Xing, George Chen, Zhao Xinyu, Tan Mei Chee and Dawn Tan

"Light amplification is fundamental to the processing optical signals. Most network amplifiers today rely on optical pumps located far from the signal, precluding resonant enhancements. We demonstrate resonators that are effectively dual-resonant, which together with a new Dy-Er material platform, enables efficient amplification within the telecommunications band."

---Dawn Tan and Tan Mei Chee



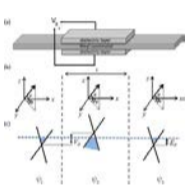
**Sustainable Green Networking And Computing In 5g Systems**

*IEEE Wireless Communications*

SUTD Author: Lingjie Duan

"This Feature Topic is dedicated to presenting recent technical advances on the energy efficiency and sustainability in 5G communication and networking systems from the perspective of technology, economics, and deployment."

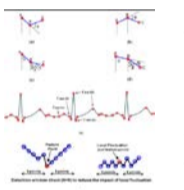
---Lingjie Duan



**Anomalous tunneling characteristic of Weyl semimetals with tilted energy dispersion**

*Applied Physics Letters*

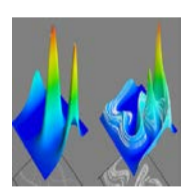
SUTD Author: Shengyuan A. Yang



**An Ultra-Low Power Turning Angle Based Biomedical Signal Compression Engine with Adaptive Threshold Tuning**

*Sensors*

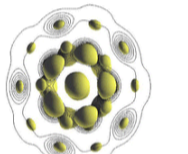
SUTD Author: Chao Wang



**Asymptotic Floquet states of open quantum systems: the role of interaction**

*IEEE Wireless Communications*

SUTD Author: Dario Poletti



**Density functional theory of doped superfluid liquid helium and nanodroplets**

*International Reviews in Physical Chemistry*

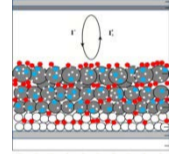
SUTD Author: David Mateo



**Design prototyping methods: state of the art in strategies, techniques, and guidelines**

*Design Science*

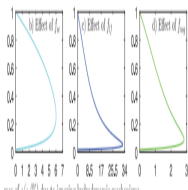
SUTD Authors: Bradley Camburn and Kristin L. Wood



**Guest Editorial Smart Grid Cyber-Physical Security**

*IEEE Transactions on Smart Grid*

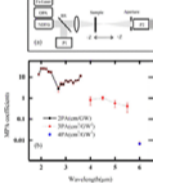
SUTD Author: David Yau



**Hydrodynamic interaction in suspended sediment distribution of open channel turbulent flow**

*Applied Mathematical Modelling*

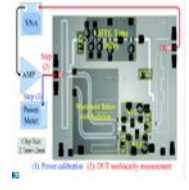
SUTD Author: Debasish Pal



**Kerr nonlinearity and multi-photon absorption in germanium at mid-infrared wavelengths**

*Applied Physics Letters*

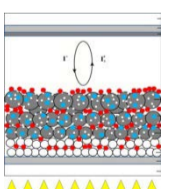
SUTD Authors: Byoung-Uk Sohn and Dawn Tan



**Predistortion Linearizer for Wideband AM/PM Cancellation With Left-Handed Delay Line**

*IEEE Microwave and Wireless Components Letters*

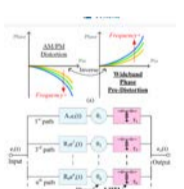
SUTD Authors: Thangarasu Bharatha Kumar and Kiat Seng Yeo



**Preparation of Zr-doped mesoporous TiO<sub>2</sub> particles and their applications in the novel working electrode of a dye-sensitized solar cell.**

*Advanced Powder Technology*

SUTD Author: Ping Wu



**Relative impact of early versus late design decisions in systems development**

*Design Science*

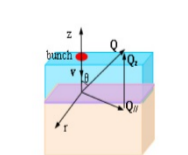
SUTD Authors: Tan, J. J. Y. and Kristin L. Wood



**Surveillance And Intervention Of Infrastructure-Free Mobile Communications: A New Wireless Security Paradigm**

*IEEE Wireless Communications*

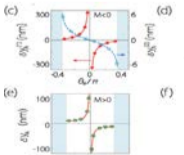
SUTD Author: Lingjie Duan



**Transition radiation from graphene plasmons by a bunch beam in the terahertz regime**

*Optics Express*

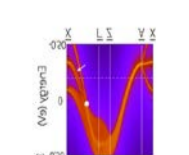
SUTD Authors: Kai-Chun Zhang, Kelvin J. A. Ooi, and Lay Kee Ang



**Transverse shift in Andreev reflection**

*Physical Review B*

SUTD Authors: Ying Liu, Zhi-Ming Zhu and Shengyuan A. Yang



**Type-II nodal loops: Theory and material realization**

*Physical Review B*

SUTD Authors: Si Li, Zhi-Ming Yu, Liu Ying, Shan Guan, Shan-Shan Wang, Zhang Xiaoming, Shengyuan A. Yang