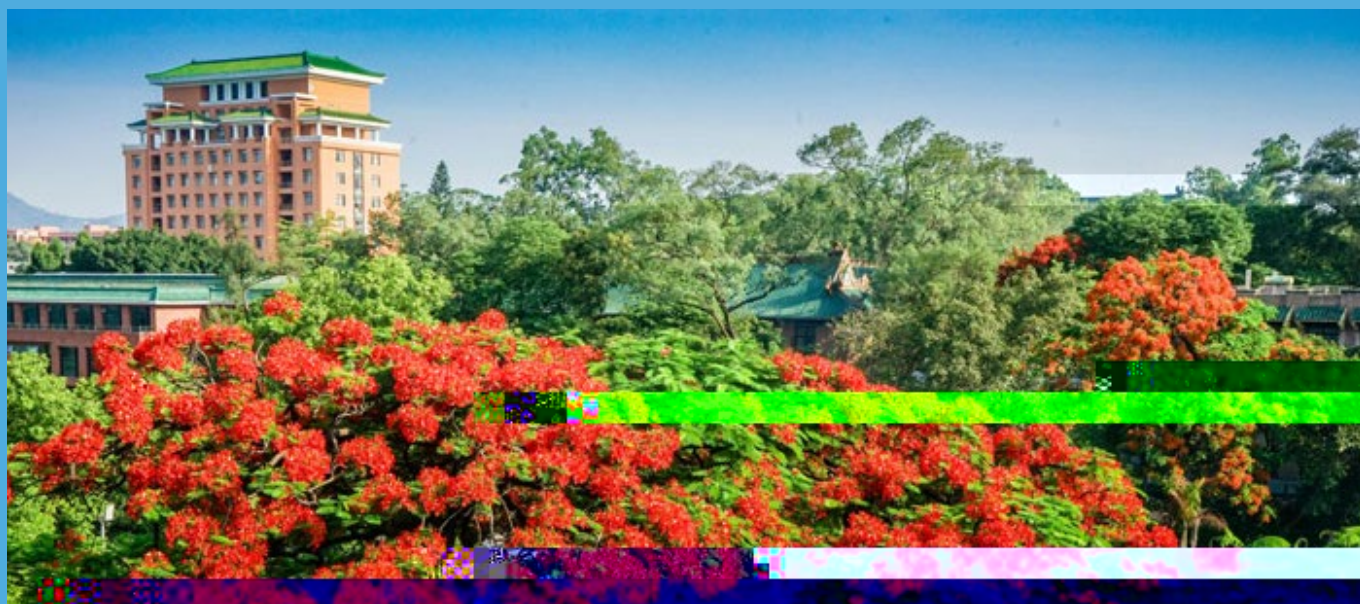
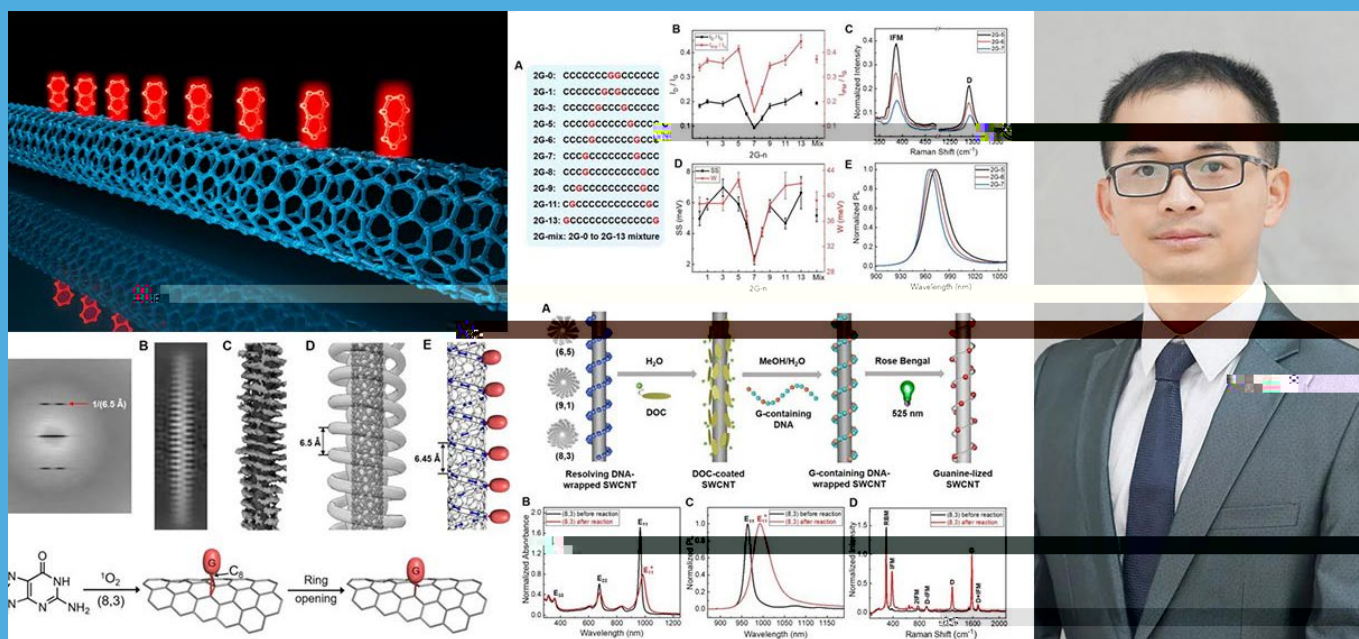




SCUT Newsletter



1. SCUT professor Zhiwei Lin published collaborative research on DNA-guided lattice remodeling of carbon nanotubes in *Science*

DNA

Science

On July 29, Zhiwei Lin, professor of School of Emergent Soft Matter, South China University of Technology (SCUT), and Ming Zheng, researcher of U.S. National Institute of Standards and Technology (NIST), collaborated to achieve controllable lattice remodeling of single-wall carbon nanotubes (SWCNTs) using DNA. Their research entitled "DNA-guided Lattice Remodeling of Carbon

Nanotubes" was published in



2. SCUT intelligent car fleet achieves top position in the finals of the 17th National University Students Intelligent Car Race

On August 22, the finals of the 17th National University Students Intelligent Car Race were held in Nanjing. The competition, conducted both online and offline, attracted 2,181 teams from 363 colleges and universities across China. The intelligent car fleet from South China University of Technology sent eight teams for the competition, among which, the intelligent vision team, Baidu intelligent traffic team, electromagnetic four-wheel vehicle team, camera four-wheel vehicle team, aerospace logistics team and balanced beacon team won national first prizes, and the complete model team and iFLYTEK smart services team won the national second prizes. The intelligent vision team in particular won first place in the country.

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2181

363
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Firstly held in 2006, the National University Students Intelligent Car Race has attracted more than 400,000 students. It has become a highly influential and reputed class-A college student disciplinary contest. Guided by the philosophy of "cultivation, participation, exploration and excellence", it is a creative and multi-disciplinary S&T competition based on intelligent vehicles, and an exploratory and practical engineering activity among all college students across the province. It has functioned well in providing an effective platform to stimulate the interest and potential of university students in engineering and technology R&D and scientific research, and to prepare them with the capacity for applying knowledge in practice, seeking truth and working as a team.

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2022 崇本英才·智汇吴江
第四届全国大学生无人车挑战杯暨华为开发者大赛

冠军



华工B3351v3.0



3. SCUT School of Computer Science and Engineering wins the finals of the 4th National College Students Unmanned Vehicle Challenge Cup and Huawei Developer Competition

From August 23 to 27, themed on "prioritizing talent and development and pooling wisdom in Wujiang", the finals of the 4th National College Students Unmanned Vehicle Challenge Cup and Huawei Developer Competition were held in Wujiang, Jiangsu province. Beating powerful competitors and overcoming difficulties along the way, the B3351v3.0 team from SCUT School of Computer Science and Engineering won the finals and achieved a historical breakthrough.

8 23 27

B3351v3.0

Co-hosted by Wujinag Economic and Technological Development Zone, Suzhou, Huawei, and Shanghai Jiao Tong University, this well reputed national AI competition represents the joint efforts of governments, enterprises, and higher educational institutions. Since its first session in 2019, it has attracted more than 2,000 participants from over 200 colleges and universities both at home and abroad, including a total of 126 domestic and international teams from universities and colleges like Tsinghua University, Shanghai Jiao Tong University, Fudan University, University of Washington, and South China University of Technology. Based on ModelArts, Huawei Cloud's one-stop AI R&D platform, terminal-cloud synergy services, and unmanned car technologies, the competition is conducted both online and offline. By combining products with knowledge learning, and promoting the learning through the competition, it aims to prepare the participants with better capacity in delivering AI solutions and unmanned driving programs.

nature

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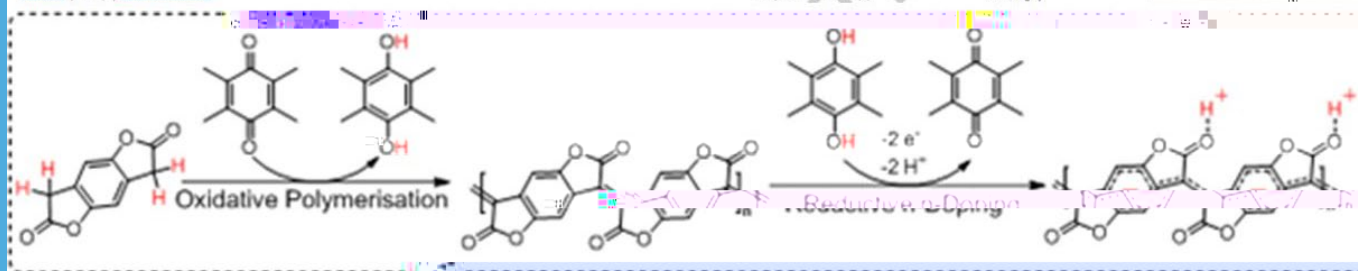
nature > articles > article

Article | Published: 07 September 2022

A solution-processed n-type conducting polymer with ultrahigh conductivity

Haoran Tang, Yuanying Liang, Chunchen Liu, Zhicheng Hu, Yifei Deng, Han Guo, Zidi Yu, Ao Song, Haiyang Zhao, Duokai Zhao, Yuanzhu Zhang, Xugang Guo, Jian Pei, Yuguang Ma, Yong Cao & Fei Huang

Nature (2022) | Cite this article



4. SCUT State Key Laboratory of Luminescent Materials and Devices achieves important breakthroughs and publishes the results in Nature

Nature

On September 7, Prof. Huang Fei, Academician Cao Yong and Academician Ma Yuguang from South China University of Technology, Prof. Zhang Yuanzhu and Prof. Guo Xugang from Southern University of Science and Technology, and Prof. Pei Jian from Peking University published the article titled "A solution-processed n-type conducting polymer with ultrahigh conductivity" in Nature, which is considered to be a major breakthrough in the field of conductive polymers (CPs). Specifically, Dr. Tang Haoran from the SCUT State Key Laboratory of Luminescent Materials and Devices is the first author, Prof. Huang Fei is the corresponding author, and SCUT is the corresponding affiliation.

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Nature

"A solution-processed n-type conducting polymer with ultrahigh conductivity"

Currently, CPs have been widely used in solar cells, sensors and some display technologies. Most of the reported high-performance CPs, however, exhibit hole-dominant (p-type) transport behavior, while the development of n-type analogues lags far behind, typically limited by low doping efficiency and ambient instability. The team of Prof. Huang Fei presented a facily synthesized highly conductive n-type polymer poly(benzodifurandione) (PBFDO). The resultant polymer exhibits a breakthrough conductivity with excellent stability and good solubility and solution-processability without extra side chains or surfactants through strong interactions with solvents. The benchmark performances in electrochemical transistors and thermoelectric generators are further demonstrated, thus paving the way for application of the n-type CPs in organic electronics. At present, the monomer high-purity

benzodifurandione used to prepare n-type CPs has been mass-produced and sold.

p

() (PBFDO)



5. SCUT students wins the special award in the 16th Siemens Cup China Intelligent Manufacturing Challenge competition (CIMC)

CIMC “ ”

On September 7, the finals of the 2022 16th Siemens Cup China Intelligent Manufacturing Challenge competition (CIMC) were held. In the "Intelligent Manufacturing Innovative R&D Category - Enterprises" section, 84 teams from universities across the country competed against each other. The SCUT team won the first place and was granted the special prize in the national finals.

9 7 2022 CIMC“

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Siemens Cup CIMC is a national A-level competition under the strategic framework for cooperation between the Ministry of Education and Siemens. It is jointly sponsored by the China Simulation Federation and Siemens Ltd. China, covering innovation, product R&D, engineering design, intelligent

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