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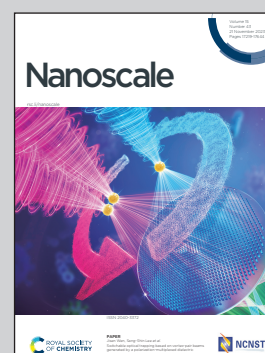


Showcasing work from Professor Shuo Shi's Chemical Biology Research Group at School of Chemical Science and Engineering, Tongji University, Shanghai, China.

Nanoclusters with specific DNA overhangs: modifying configurability, engineering contrary logic pairs and the parity generator/checker for error detection

The elementary contrary logic pairs, complex logic operations, and advanced non-arithmetic logic devices have been successfully constructed. The use of a cascade of XOR operations enables the evaluation of bit errors by introducing pG and pC at the transmitting and receiving ends in binary transmission, respectively. The proposed approach presents a cost-effective strategy for constructing highly intelligent DNA computing devices, revolutionizing molecular computing and opening new horizons in data security and processing.

As featured in:



See Thimmaiah Govindaraju, Shuo Shi *et al.*, *Nanoscale*, 2023, 15, 17386.