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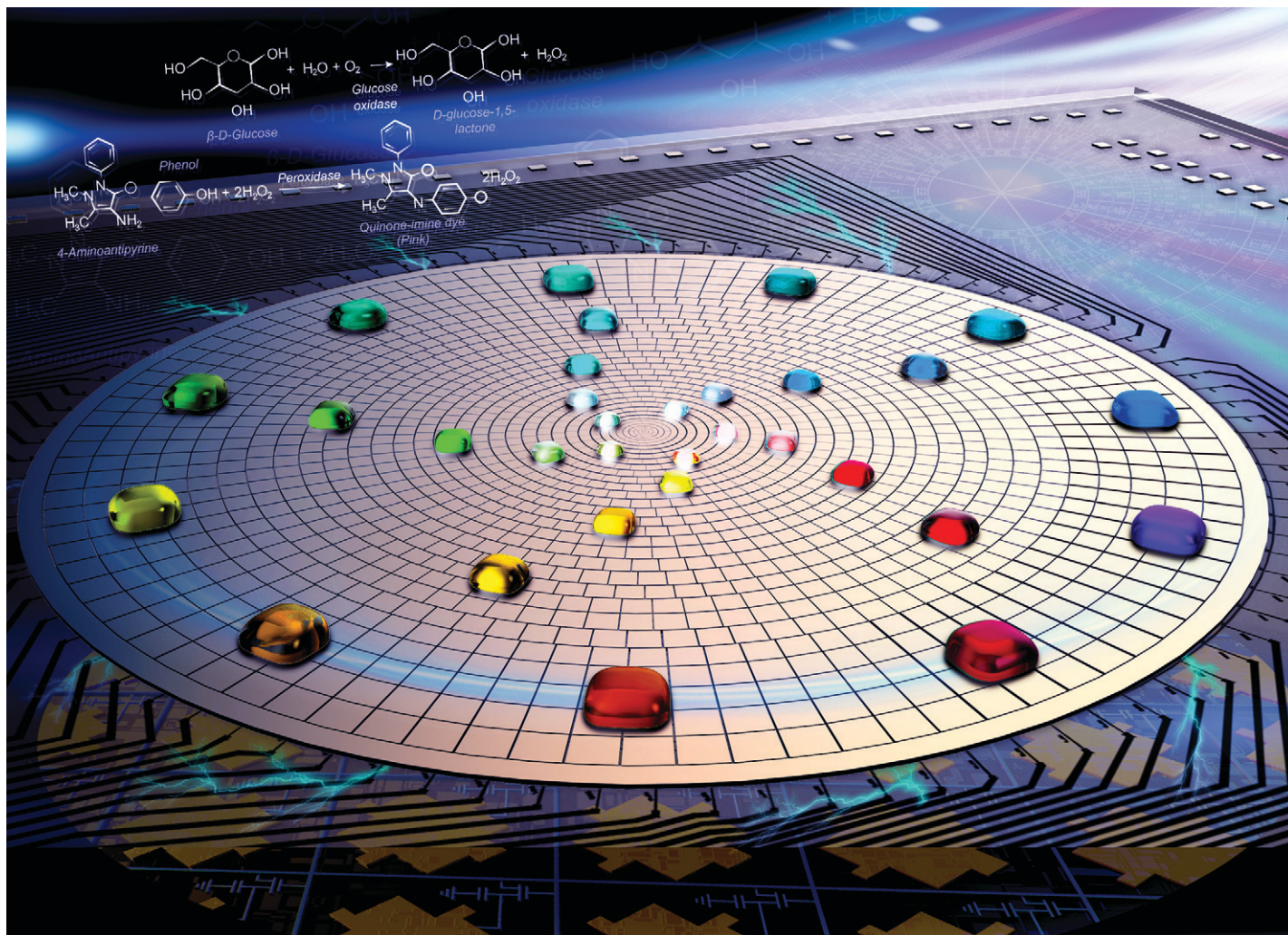
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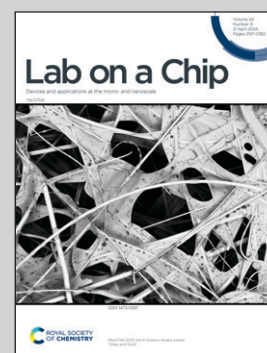


Featuring work from laboratories of Professor Hanbin Ma at Suzhou Institute of Biomedical Engineering and Technology, China, and Professor Jinhua Li at Changchun University of Science and Technology, China, and Guangdong ACXEL Micro & Nano Tech Co., Ltd, China, and ACX instruments Ltd, Cambridge, UK. ACXEL is a leading company that provides a one-stop solution for next-generation digital microfluidics system to fit into a wide range of application areas.

Polar coordinate active-matrix digital microfluidics for high-resolution concentration gradient generation

Automated concentration gradient generation is one of the most important applications of lab-on-a-chip devices. In this work, we report an active-matrix digital microfluidic device with polar coordinate electrodes arrangement. To compare with conventional rectangular coordinator arrangement with the similar electrode number, this work shows approximately a 19 times resolution enhancement for the achievable concentration gradient.

### As featured in:



See Jinhua Li, Hanbin Ma *et al.*,  
*Lab Chip*, 2024, **24**, 2193.