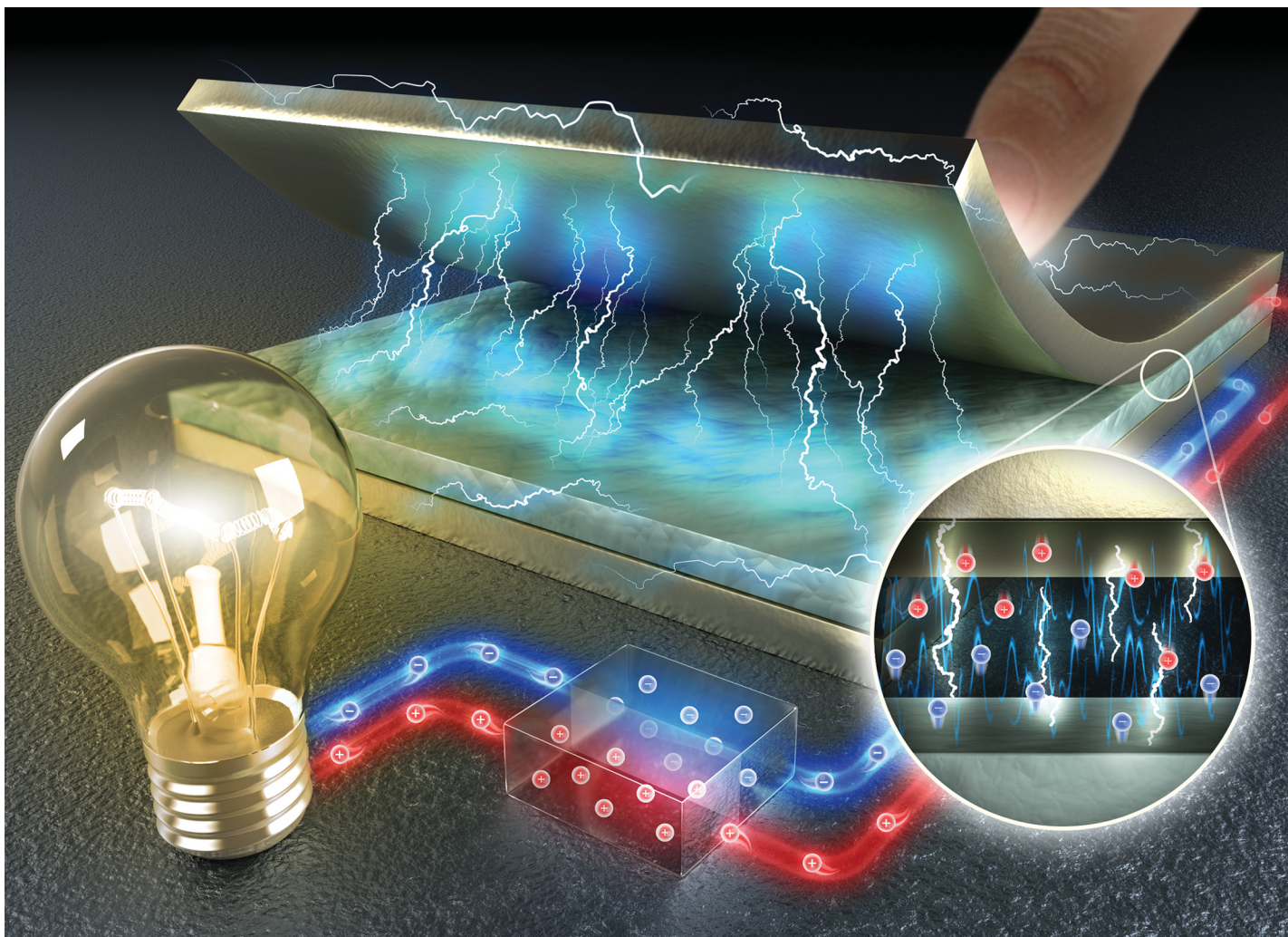




Showcasing research from Professor Xiongying Ye's laboratory, State Key Laboratory of Precision Measurement Technology and Instruments, Department of Precision Instrument, Tsinghua University, Beijing, China.

Ultrahigh power generation from low-frequency and micro motion by suppressing air breakdown

Electrostatic generators, including triboelectric and electret types, face challenges with air breakdown when increasing charge density. This study introduces a method to suppress air breakdown by adjusting the electric field within the generator, allowing for ultra-high charge and energy densities without gas replacement. The study offers new insights and a practical framework for boosting electrostatic generators' output under air breakdown limitations, significantly advancing their practical applications.

As featured in:



See Zeyuan Cao, Xiongying Ye *et al.*,
Energy Environ. Sci., 2024, **17**, 5002.