

Scanning Casimir force microscope and its applications

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After a brief introduction of Casimir force, I will show our pioneering achievement of realizing a novel scanning probe microscope—the scanning Casimir force microscope. Such new microscope is based on the principle of Casimir force. Subsequently, we will share several applications of the scanning Casimir force microscope. In particular, I will highlight the effective tuning of the Casimir force from attraction to repulsion measured in ferrofluids by the application of a magnetic field.

Reference:

Yichi Zhang *et al.*, Nat. Phys. doi.org/10.1038/s41567-024-02521-0