

Abstract Submitted  
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**Casimir force in a cylinder-plane configuration** MICHAEL BROWN-HAYES, SCOTT MIDDLEMAN, WOO-JOONG KIM, Dartmouth College, DIEGO DALVIT, Los Alamos National Laboratory, FRANCISCO MAZZITELLI, University of Buenos Aires, ROBERTO ONOFRIO, Dartmouth College — We have developed and tested an apparatus [1] to measure the Casimir force in a cylinder-plane configuration, which is a compromise between the parallel plane and sphere-plane configurations, with intermediate advantages. Preliminary calibrations with electrostatic forces show that the Casimir forces should be detectable in a range large enough to observe the expected thermal corrections.

[1] M. Brown-Hayes, D.A.R. Dalvit, F.D. Mazzitelli, W.J. Kim, and R. Onofrio, *Phys. Rev. A* 72, 052102 (2005).

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