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Casimir Energy for a Dielectric Cylinder INES CAVERO-PELAEZ, KIMBALL MILTON, APS — In this paper we calculate the Casimir energy for a dielectric-diamagnetic cylinder with the speed of light differing on the inside and outside. Although the result is in general divergent, special cases are meaningful. The well-known results for a uniform speed of light are reproduced. The self- stress on a purely dielectric cylinder is shown to vanish through second order in the deviation of the permittivity from its vacuum value, in agreement with the result calculated from the sum of van der Waals forces.

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