

Abstract Submitted
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Casimir Effect in Highly Dense System NIVA JAYSWAL, SAMINA MASOOD, University of Houston-Clear Lake — Casimir force is related to the dielectric constant and other properties of a medium. The effects of high density and the corresponding chemical potential on the Casimir force are studied in detail. Casimir force for extremely dense systems such as super dense stellar cores or the highly dense portions of complex structures of polymer or proteins is investigated. It is expected that the Casimir force can provide additional information in understanding the interaction between molecules of complex structures such as proteins or extremely dense stellar cores at very high temperatures. The modified electric permittivity in dense systems is used to describe the Casimir force correctly.

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