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Experimental measurement of equation of state for isotropic suspension of nanoplates¹ ABHIJEET SHINDE, XUEZHEN WANG, Texas A&M University, RODRIGO GUERRA, Harvard University, ZHENG DONG CHENG, Texas A&M University — Liquid crystalline phases of disk suspensions are of importance in science and in industry for various applications such as conductive polymers, synthetic clay and semiconductors. We studied the self-assembly of highly anisotropic and narrowly polydispersed nanoplates of Zirconium Phosphate (ZrP). Here we report, measurement of the equation of state for isotropic phase. We generated the EOS by studying attenuation of x-ray in gravity sedimented suspension of exfoliated ZrP nanoplates. We compare our equation of state with the one obtained through simulation by others.

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