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Triple Diffusive Convection in a Vertically Oscillating Oldroyd-B Liquid

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Abstract : The effect of linear stability analysis of triple diffusive convection in a vertically oscillating viscoelastic liquid of Oldroyd-B type is studied. The correction Rayleigh number is obtained by using perturbation method which gives prospect to control the convection. The eigenvalue is obtained by using perturbation method by adopting Venezian approach. From the study, it is observed that gravity modulation advances the onset of triple diffusive convection.

Keywords: gravity modulation, Oldroyd-b liquid, triple diffusive convection, venezian approach

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