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Self phase modulation is a nonlinear effects that is observed when a laser beam is focused on to a high-absorbing thermal medium. The refractive index of the medium changes due to the heat generated by the focused laser pump beam. In this paper, self phase modulation is investigated in different ways. An Ar-Ion laser of 514 nm is used as the pump beam and a 632 nm He-Ne laser is used as the probe beam. The probe beam is introduced from the opposite side of the pump beam. Ring patterns are observed from the each side of the sample. Regular far field ring patterns are observed from the pump beam, and two sets of rings are observed with the probe beam. The behavior of these inner and outer rings are monitored for different pump powers. A regular tea sample in a plastic cuvette is used as the nonlinear absorbing sample. The steady state heat equation is solved to obtain an exact solution for the radial heat distribution and far field ring patterns are simulated using the Fresnel-Kirchhoff diffraction integral. Ring patterns are theoretically explained using simulations results, and compared with experimental observations. Finally, an interferometric setup using the low power He-Ne laser is also used to determine the induced change in refractive index. Results are compared with those obtained directly from self-phase modulation and from the probe beam method.