

Abstract Submitted
for the MAR10 Meeting of
The American Physical Society

The self-focusing and the optical breathers in tunable waveguide arrays YI-HSIU WU, SHUAN-YU HUANG, CHIE-TONG KUO — A voltage-controlled waveguide array in planar nematic liquid crystals is employed to investigate the phenomena of self-focusing and optical breathers. The multiple focal points appearing along the propagating axis can be adjusted their beam undulation by the applied voltage. The breathing period resulting from a periodic refractive-index modulation can be induced by a spatially periodic electric-field distribution. The polarization dependence of breathing period in a waveguide array is also discussed.

Chie-Tong Kuo
National Sun Yat-Sen University

Date submitted: 27 Nov 2009

Electronic form version 1.4