

Abstract Submitted
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Polaronic effect in lightly doped high-Tc cuprates TORU SAKAI,
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versite Paul Sabatier — The effect of in-plane oxygen phonons is investigated by
numerical exact diagonalizations of the t-J Holstein model.[1] The present study in-
dicates that the breathing vibration mode gives rise to a polaronic effect which yields
a broadening of the single hole quasiparticle spectrum and a shift from the chemical
potential, as the one observed in angle-resolved photoemission spectroscopy.[2] [1]
T. Sakai, D.Poilblanc and D.J.Scalapino, Phys. Rev. B 55 (1997) 8445. [2] K. M.
Shen et al., Phys. Rev. Lett. 93 (2004) 267002.

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