

## STRUCTURE OF NORMALLY DEFORMED STATES IN $^{80}\text{Sr}$ <sup>1</sup>

D. F. Winchell<sup>2</sup>, V. Q. Wood<sup>2</sup>, J. X. Saladin<sup>2</sup>, I. Birriel<sup>2</sup>, C. Baktash, M. J. Brinkman, H.-Q. Jin, D. Rudolph, C.-H. Yu, M. Devlin<sup>3</sup>, D. R. LaFosse<sup>3</sup>, F. Lerma<sup>3</sup>, D. G. Sarantites<sup>3</sup>, G. Sylvan<sup>4</sup>, S. L. Tabor<sup>4</sup>, R. M. Clark<sup>5</sup>, P. Fallon<sup>5</sup>, I.-Y. Lee<sup>5</sup>, and A. O. Macchiavelli<sup>5</sup>

High-spin states were populated in  $^{80}\text{Sr}$  with the reaction  $^{58}\text{Ni}(^{28}\text{Si},\alpha 2p)$ , using a 130 MeV  $^{28}\text{Si}$  beam from the 88 inch cyclotron at LBNL. Gamma rays were detected with Gammasphere, and evaporated alphas and protons were detected with the Microball. The level scheme has been extended, and angular distributions of many of the transitions have been measured. A portion of the data was taken using a backed target, allowing lifetime measurements. No evidence for band termination was found in the spin range studied, but a cranking model analysis indicates possible shape evolution at higher spin.

---

<sup>1</sup>Abstract of paper submitted to Phys. Rev. C.

<sup>2</sup>University of Pittsburgh, Pittsburgh, PA 15260.

<sup>3</sup>Washington University, St. Louis, MO 63130.

<sup>4</sup>Florida State University, Tallahassee, FL 32306.

<sup>5</sup>Lawrence Berkeley National Laboratory, Berkeley, CA 94720.