Abstract Submitted
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B(E2) Transition Strengths of Neutron-rich Carbon Isotopes in a Seniority Scheme[1] A.O. MACCHIAVELLI, M. PETRI, P. FALLON, R.M. CLARK, M. CROMAZ, I-Y. LEE, S. PASCHALIS, Lawrence Berkeley National Laboratory - Berkeley, CA 94720 — Lifetime measurements of ^{16,18,20}C isotopes using the DSAM technique have been recently carried out at NSCL [1,2]. The new data provide unique information about the structure of the Carbon isotopes. In this work we attempt to interpret the derived B(E2) transitions strengths in terms of a seniority inspired scheme. The analysis shows an important role played by proton excitations due to an effective reduction of the $p_{3/2} - p_{1/2}$ spin-orbit splitting. The predicted behavior of spectroscopic factors for proton removal and magnetic moments can be tested experimentally.

[1] M.Petri et al. Submitted to Phys. Rev. Lett.
[2] P.Voss et al. to be published.

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