Abstract Submitted
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Investigating nuclear structure relevant to neutrinoless double β decay: ^{76}Ge and ^{76}Se[1] B.P. KAY, J.P. SCHIFFER, K.E. REHM, ANL, S.J. FREEMAN, Manchester, J.A. CLARK, C.M. DEIBEL, C. WREDE, Yale, A.C.C. VILLARI, GANIL, P. GRABMAYR, Tubingen, T. ADACHI, H. FUJITA, Y. FUJITA, K. HATANAKA, D. ISHIKAWA, Y. MEADA, H. MATSUBARA, H. OKAMURA, Y. SAKEMI, Y. SHIMIZU, H. SHIMODA, K. SUDA, Y. TAMESHIGE, A. TAMII, RCNP Osaka — Disagreements between theoretical predictions of matrix elements relevant to neutrinoless double beta decay motivated measurements of valence occupations in the ground states of ^{76}Ge and ^{76}Se. Results from neutron transfer reactions indicate that the Fermi surface is much more diffuse than theoretical calculations suggest[a]. Recently, similar measurements have been carried out to determine the difference in proton occupations of these nuclei. This program of work is complemented by results probing pair correlations in these nuclei, obtained using the (p,t) reaction[b]. [a]J.P. Schiffer *et al.* Phys. Rev. Lett. **100**, 112501 (2008) [b]S.J. Freeman *et al.* Phys. Rev. C **75**, 051301(R) (2007)

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