

Abstract Submitted
for the DNP07 Meeting of
The American Physical Society

Decay of ^{10}C excited states above the $2p + 2\alpha$ threshold and the contribution from “democratic” two-proton emission KEVIN MERCURIO, Department of Physics, Washington University in St. Louis, R.J. CHARITY, Department of Chemistry, Washington University in St. Louis, L.G. SOBOTKA, Departments of Physics and Chemistry, Washington University in St. Louis, J. ELSON, Department of Chemistry, Washington University in St. Louis, M. FAMILANO, Department of Physics, Western Michigan University, A. BANU, C. FU, L. TRACHE, R.E. TRIBBLE, Cyclotron Institute, Texas A&M University — The decay of ^{10}C excited states to the $2p + 2\alpha$ exit channel has been studied using an $E/A = 10.7$ MeV ^{10}C beam inelastically scattered from a ^9Be target. Levels associated with the two-proton decay to the ground state of ^8Be have been observed. These include states at 5.18 and 6.54 MeV which decay by sequential two-proton emission through the long-lived intermediate state of ^9B . In addition, states at 5.3 and 6.57 MeV were found in which there is no long-lived intermediate state between the two proton emissions. For the 6.57 MeV state, the two protons are preferably emitted on the same side of the decaying ^{10}C fragment. Furthermore, preliminary evidence will be presented for an 8 MeV state decaying through the second excited state of ^9B .

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Date submitted: 01 Aug 2007

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