N-16 Capture to Differentiate Between Neutrinos and Antineutrinos in Super-Kamiokande ASHLEY JONES, Duke University, SUPER KAMIOKANDE COLLABORATION — Super-Kamiokande is a large water Cherenkov neutrino detector in Japan. Without a magnetic field, the difference between neutrinos and antineutrinos is not apparent. The difference can be observed, however, through the decay of nitrogen-16. Negative muons capture on oxygen nuclei, and oxygen-16 becomes nitrogen-16, which beta decays. Looking for the decay after low energy events within detector samples can signify neutrino events as opposed to prevalent antineutrino events.