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α-cluster ANCs at sub-Coulomb energies for nuclear astrophysics M.L. AVILA, Florida State University, G.V. ROGACHEV, E. KOSHCHIY, Texas A&M University, L.T. BABY, J. BELARGE, K.W. KEMPER, A.N. KUCHERA, Florida State University, A.M. MUKHAMEDZHANOV, Texas A&M University, D. SANTIAGO-GONZALEZ, Florida State University, E. UBERSEDER, Texas A&M University — Many important α-particle induced reactions can only be measured indirectly due to small cross section at energies of astrophysical interest. Extracting the Asymptotic Normalization Coefficients (ANCs) using sub-Coulomb α-transfer reactions can been used as an effective method to determine properties of near-threshold resonances to constrain and drastically limit the uncertainties related to extrapolations procedures for key astrophysical reactions. We have applied this valuable tool to investigate the α-transfer reactions $^{16}O(^{6}\text{Li,d})^{20}\text{Ne}$, $^{13}C(^{6}\text{Li,d})^{17}O$ and $^{12}C(^{6}\text{Li,d})^{16}O$.

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