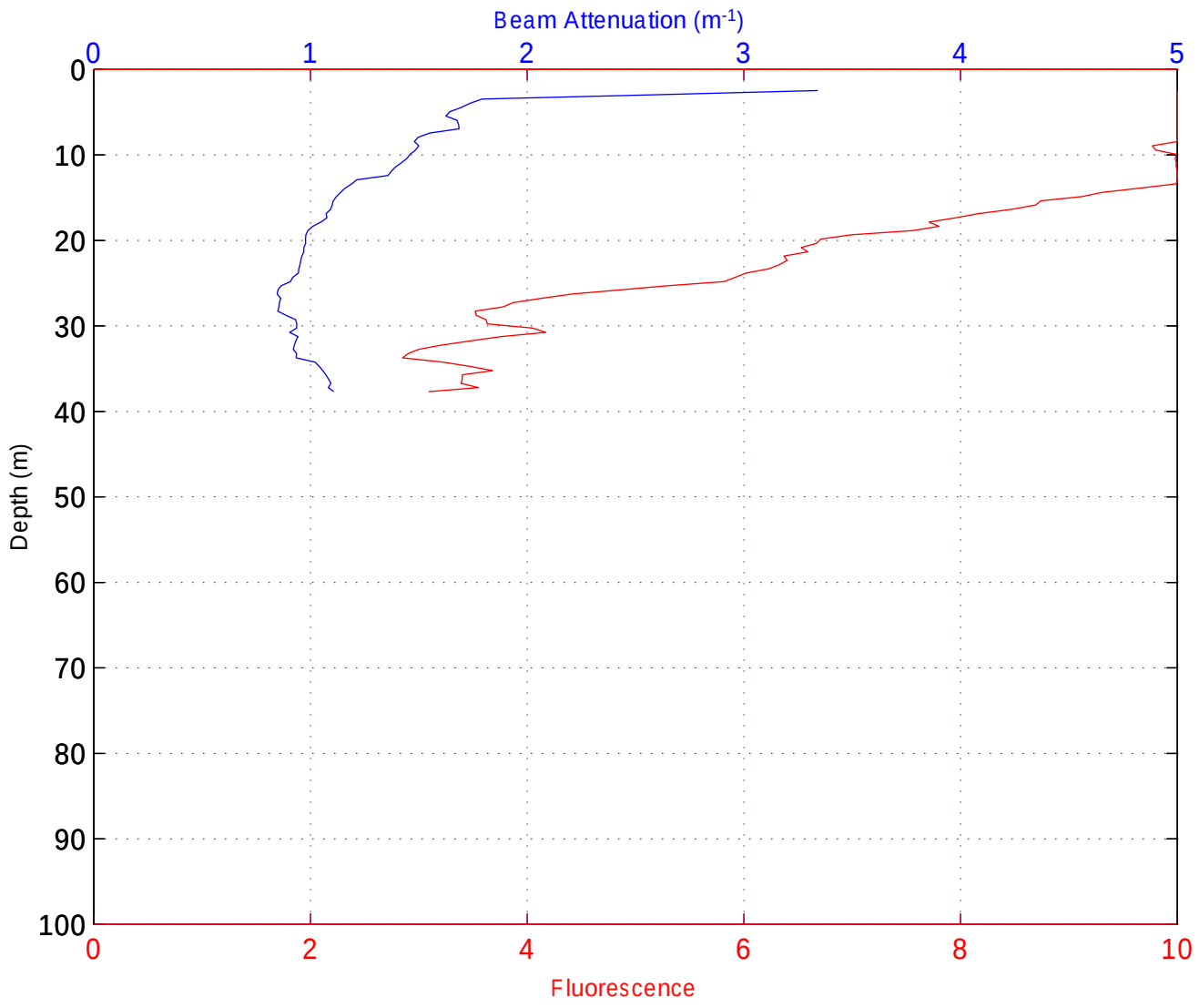Endeavor Cast 8: Beam Attenuation and Fluorescence