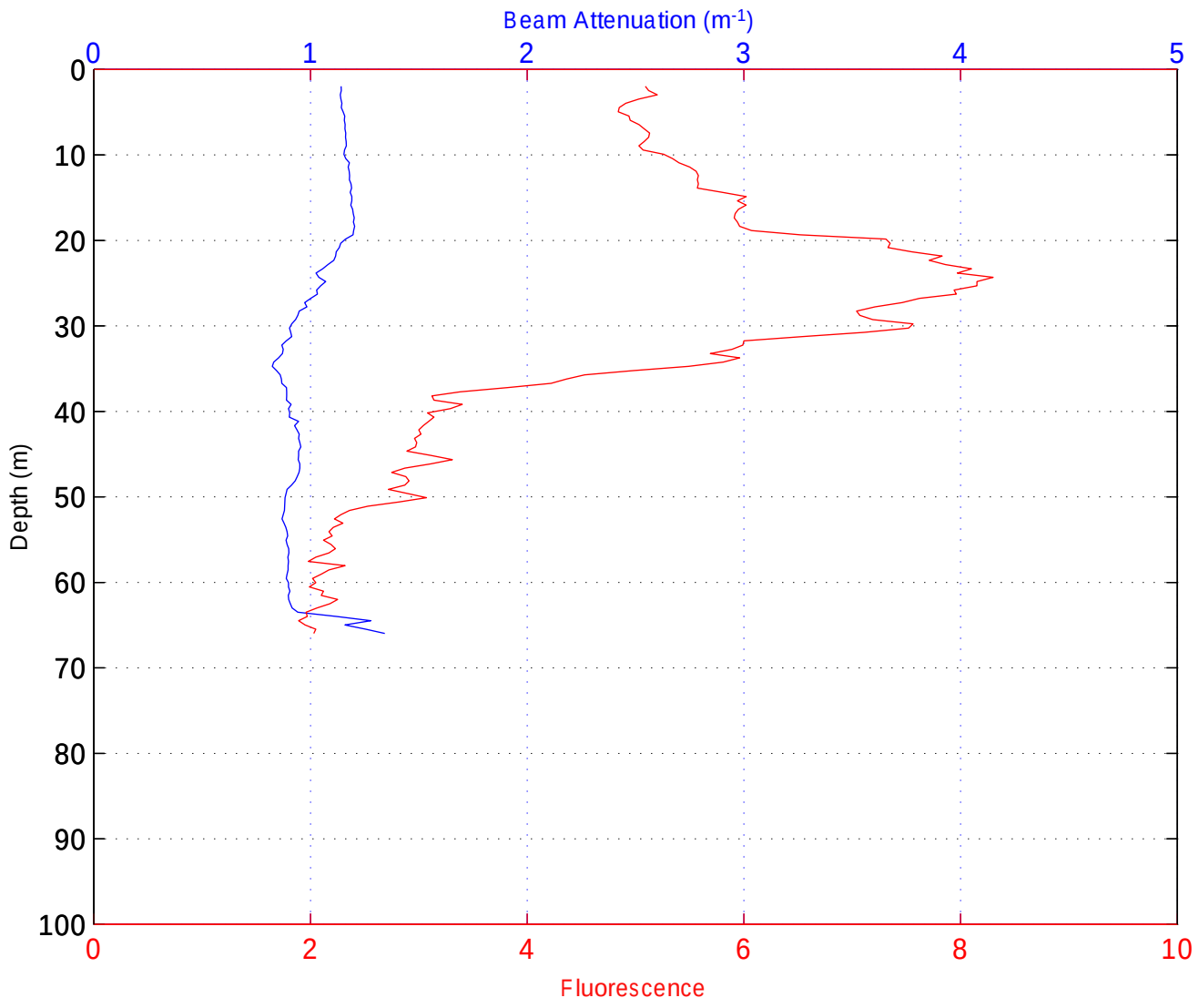Endeavor Cast 2: Beam Attenuation and Fluorescence