



Figure 1. (a,c) Comparison of O 1s XANES spectra of a reference ZnO film and of ZnO:Yb films with different doses of Yb ($5e14$ and $5e15$ atoms/cm²). All samples are after RTA. (b,d) O K XANES spectra obtained by linear combination of selected theoretical models calculated by FEFF code (see text for details) for different polarization geometry. (For interpretation of the references to color in this figure legend, the reader is referred to the Web version of this article.)