



Figure 1 Largest Ru particle radius as a function of pattern width for 50 and 100 cycles Ru ALD. The yellow lines represent the thickness of an equivalent Ru film on TiN, a typical growth surface. The critical diameter for size-dependent reactivity is marked by a dashed line. The window for defect etching is illustrated for 20 and 100 nm wide patterns. The continuous blue and black lines serve as guides to the eye.