

Fig. 1 - (a) A 2D section of a 3D polytene chromosome. (b) Projection of a filtered image of a subregion of (a). The filter here is based on autocorrelation analysis, selecting 30nm sizes and shows ordered structures.

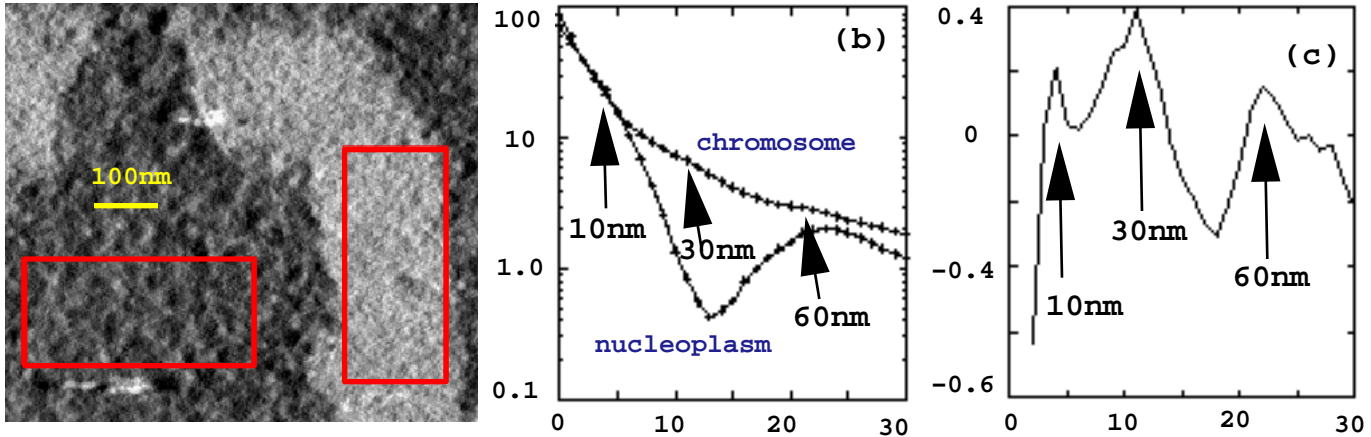


Fig. 2 - (a) A 2D section of a 3D diploid anaphase chromosome. (b) Autocorrelation function as a function of the pixel distance for the vertical (upper) and horizontal (lower) boxes shown in (a) (they correspond to mostly chromosome and nucleoplasm, respectively). (c) Enhancement of the peaks shown in (b) using techniques of least square fit for the upper curve (chromosome).

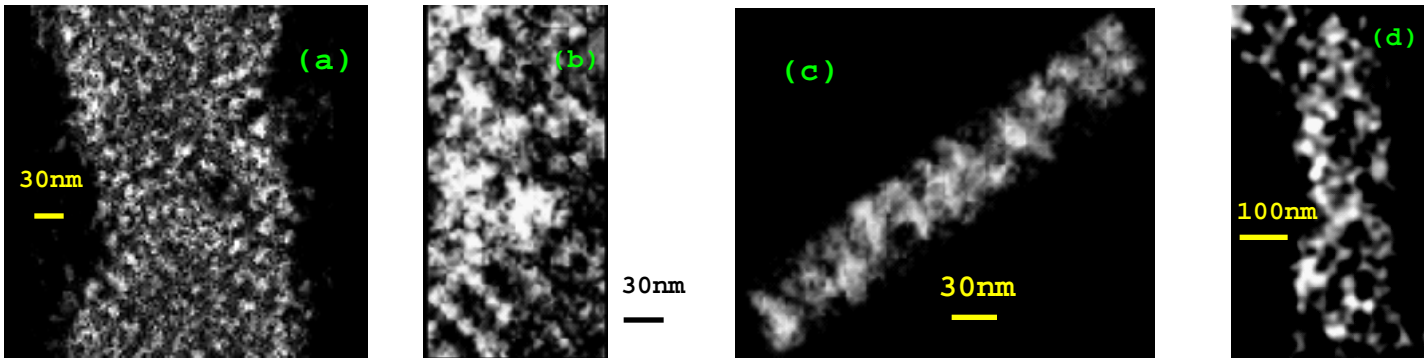


Fig. 3 - (a) (b) and (c, a thin slice on edge xz view) Filtered subregions emphasizing 30nm structures of an anaphase chromosome shown in Fig. 2 using autocorrelation analysis. (d) Gaussian filter in frequency domain of the same chromosome showing possible helical structures. All the cases shown here are 2D projections of 3D images. Again, ordered, possibly helical structures are seen.