

Supplementary Information

LOW-VOLTAGE SCANNING ELECTRON MICROSCOPY STUDY OF LAMPBRUSH CHROMOSOMES AND NUCLEAR BODIES IN AVIAN AND AMPHIBIAN OOCYTES

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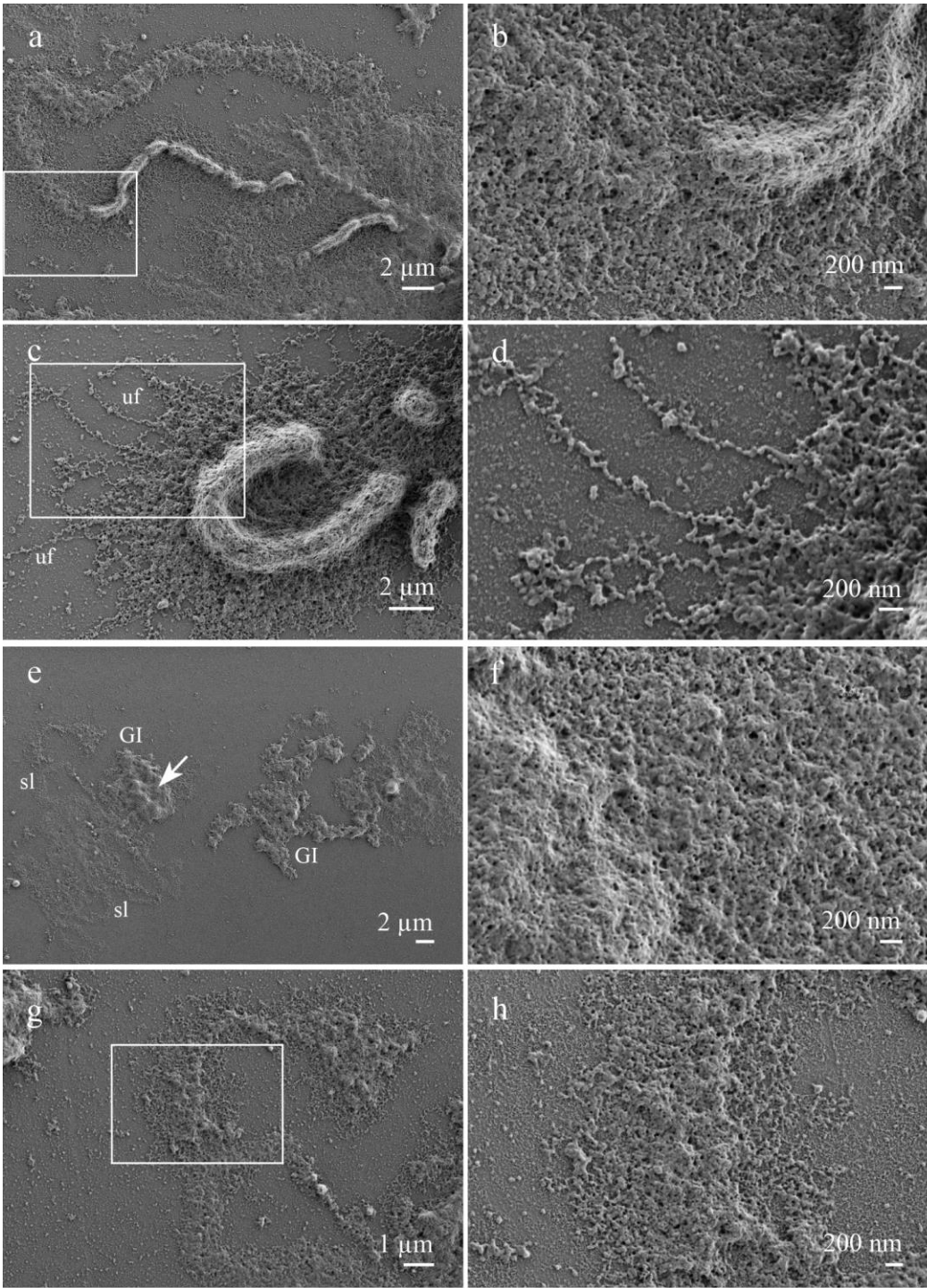
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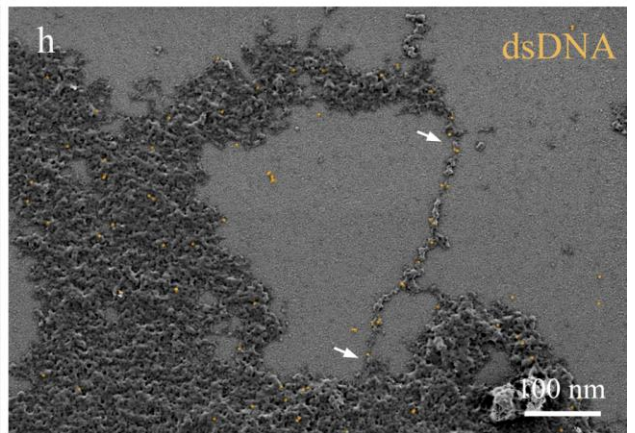
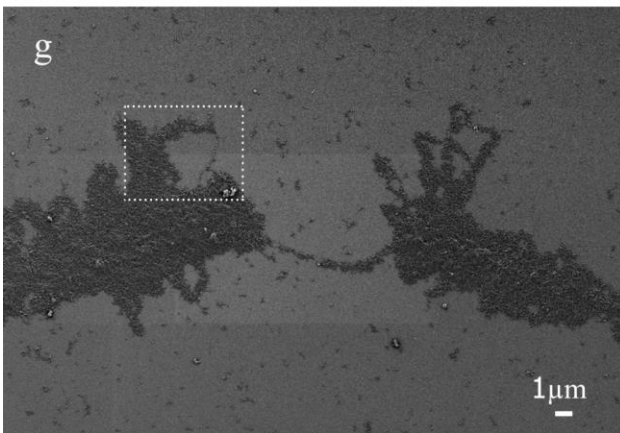
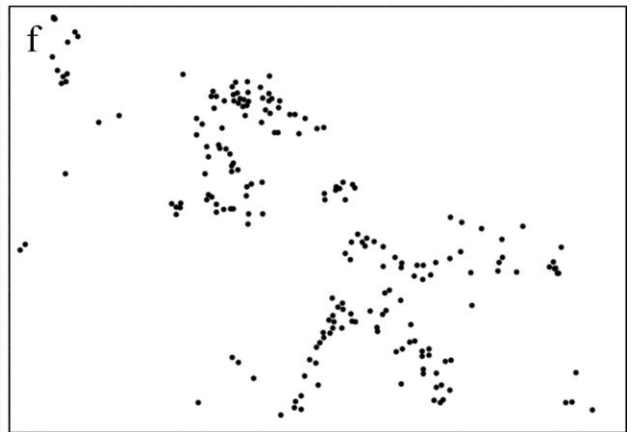
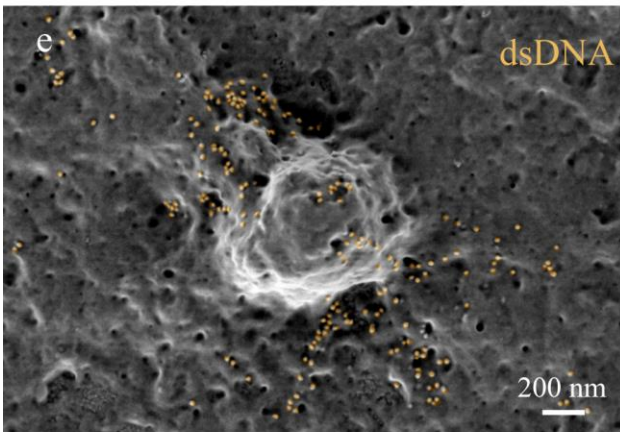
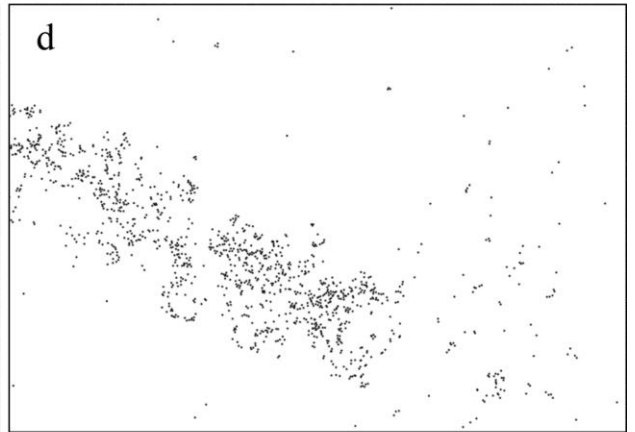
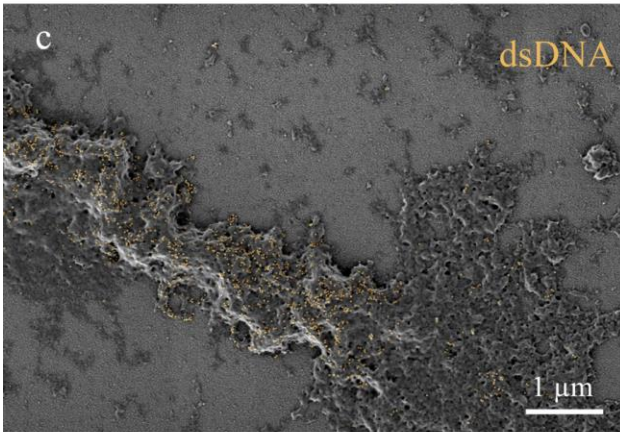
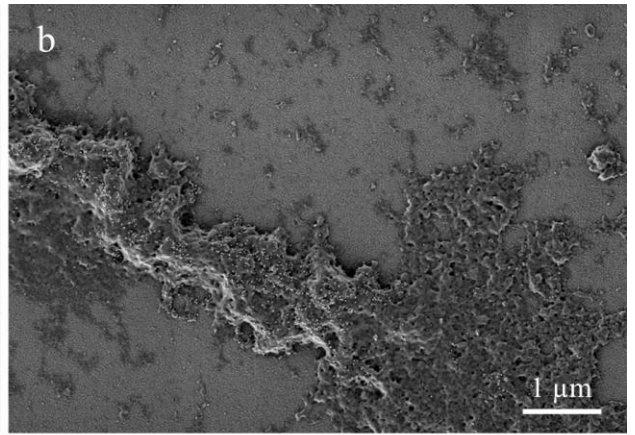
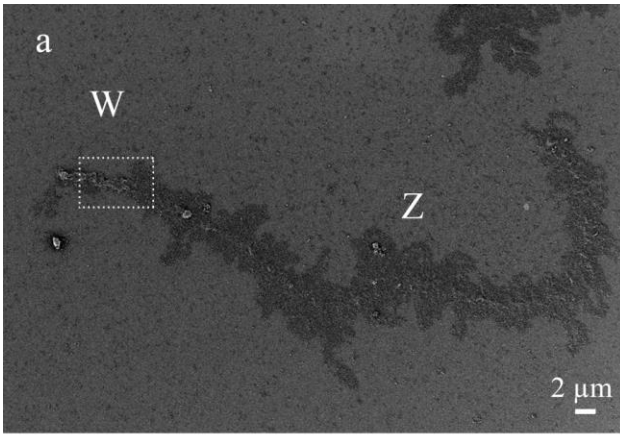
Supplementary Information Guide

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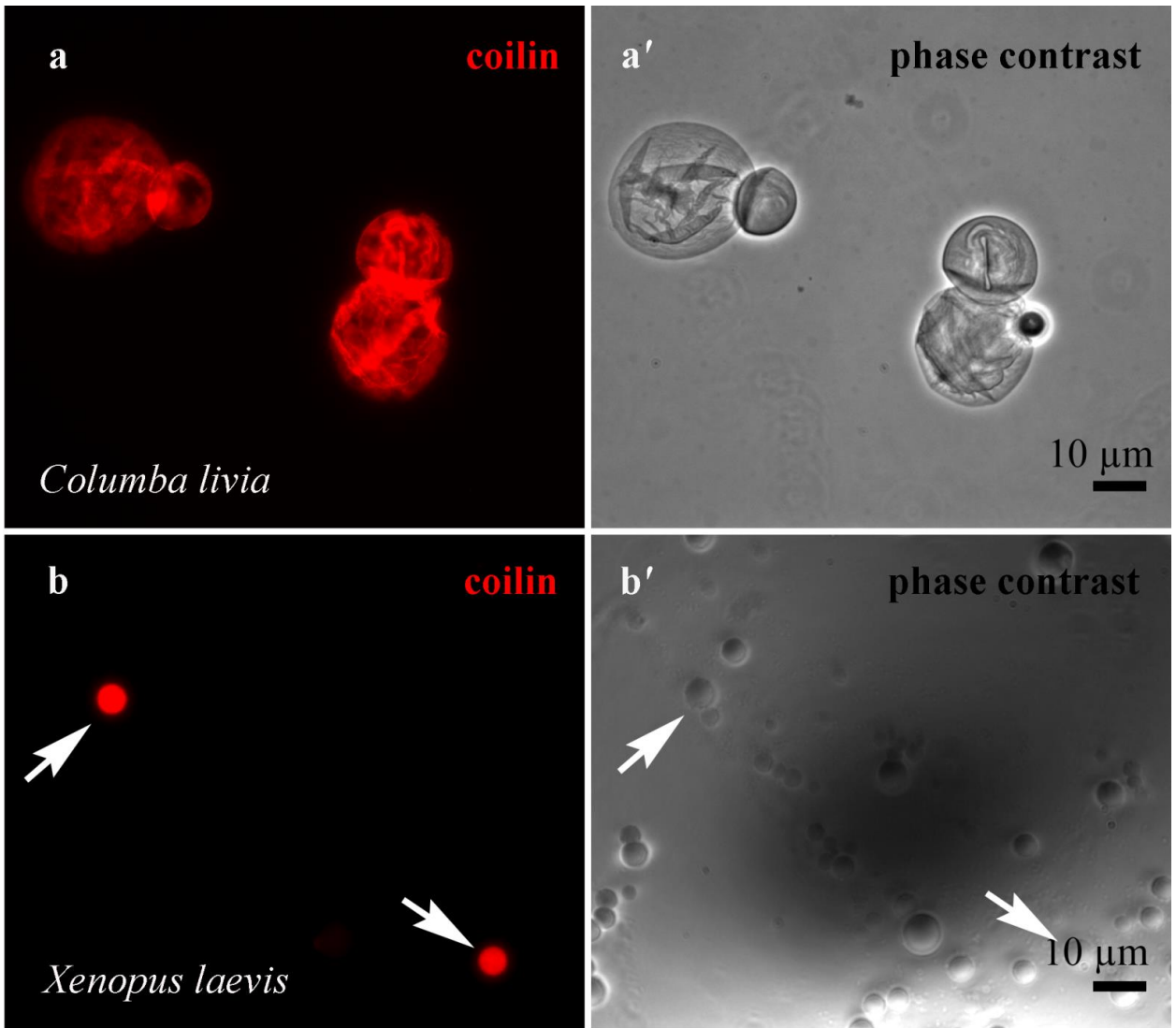
Supplementary Figures and Legends S1-S4



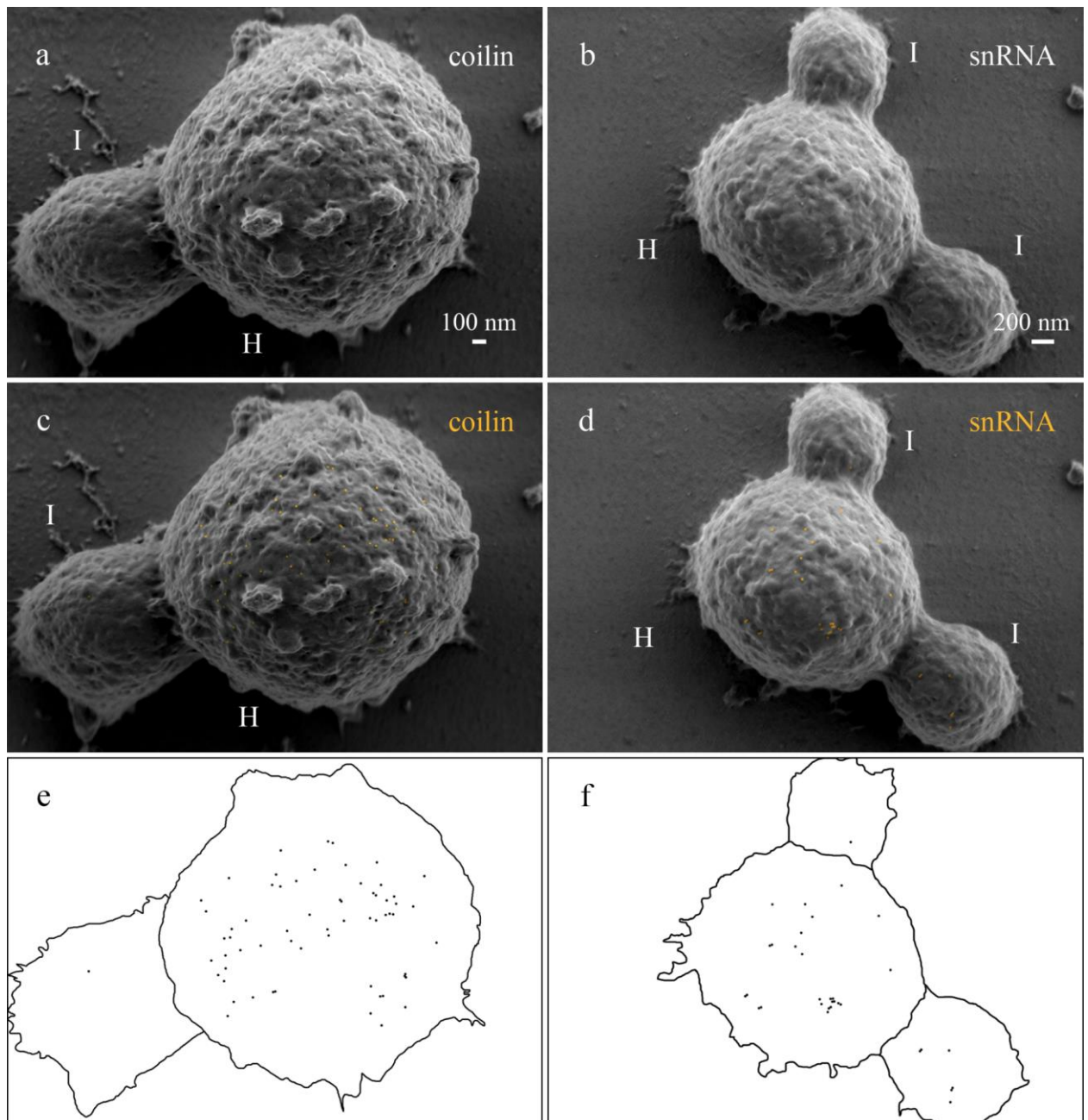
Supplementary Figure 1. The surface morphology of complex lateral loops, simple lateral loops and GITERA. Lampbrush chromosomes of *Columba livia*. **a, c** – pericentromere dense loops on chromosome W; **b, d** – enlarged fragments of **a, c**; uf – untwisted RNP-fibrils. **e** – fragment of lampbrush chromosomes bearing GITERA; sl – simple lateral loops, GI – GITERA, arrow – area enlarged on **f**. **f** – enlarged fragment of GITERA. **g, h** – enlarged fragments of simple lateral loops shown on panel **e**. Low-voltage scanning electron microscopy. Scale bars: **a, c, e** – 2 μm , **b, d, f, h** – 200 nm, **g** – 1 μm .



Supplementary Figure 2. Surface distribution of dsDNA on chromomeres and untranscribed regions of lateral loop axes. Lampbrush chromosomes of *Coturnix coturnix japonica*, immunogold labelling with antibodies against dsDNA. ZW-lampbrush bivalent (**a**) and enlarged fragment of W-lampbrush chromosome (**b, c, d**), a separate chromomere (**e**), fragment of a lampbrush chromosome (**g**), enlarged lateral loop; edges of untranscribed region marked with arrows (**h**). **b** – dsDNA revealed by 18 nm gold nanoparticles (electron dense granules); **c, e, h** – gold nanoparticles pseudocoloured with yellow; **d, f** – distribution pattern of gold nanoparticles. Low-voltage scanning electron microscopy. Scale bars: **a** – 2 μm , **b** – 1 μm , **c** – 1 μm **e** – 200 nm, **g, h** – 1 μm , **h**.



Supplementary Figure 3. Coilin-containing nuclear bodies in *Columba livia* and *Xenopus laevis* growing oocyte nucleus. Distribution of protein coilin in nuclear structures of pigeon (**a**) and frog (**b**) growing oocytes. Immunofluorescent labeling with antibodies against coilin (red). Corresponding phase contrast images in transmitted light are shown (**a'**, **b'**). Scale bars: 10 μm .



Supplementary Figure 4. The distribution of coilin and snRNA on the surface of HLB and attached IGC of *Xenopus laevis* growing oocytes. Immunogold labeling with antibodies against coilin (**a**, **c**, **e**) and snRNAs (**b**, **d**, **f**). **a**, **b** – distribution of coilin or snRNA on the surface of HLB (H) and IGC (I) revealed by 10 nm and 18 nm gold nanoparticles (electron dense granules) correspondingly; **c**, **d** – gold nanoparticles pseudocoloured with yellow; **e**, **f** – distribution patterns of gold nanoparticles. Low-voltage scanning electron microscopy. Scale bars: **a** – 100 nm, **b** – 200 nm.