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# Origin of optical defects in rapidly grown DKDP crystals

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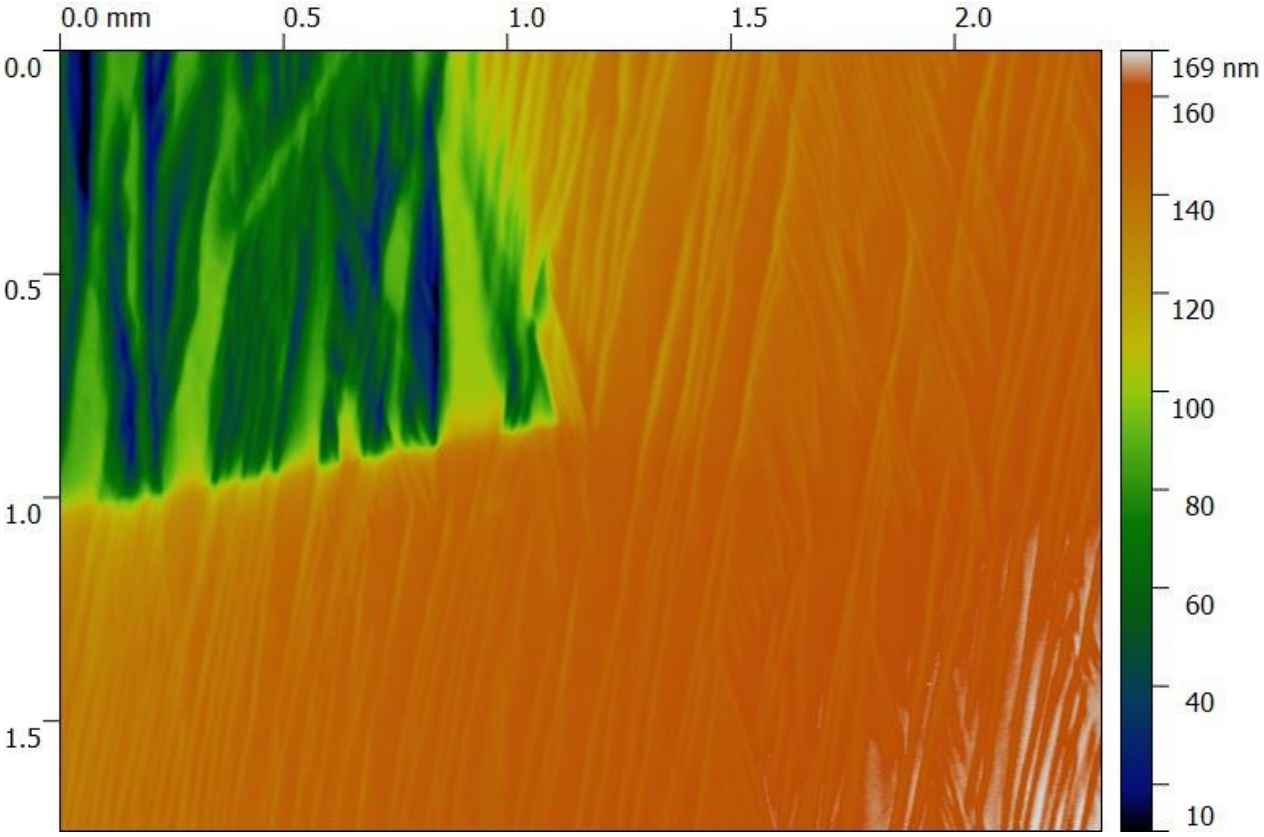


**Figure SI1:** Optical profilometer image (2.3x1.7 mm2) of the DKDP slab's back surface showing the same differences in surface roughness and level as those presented in Fig. 3. The sectors

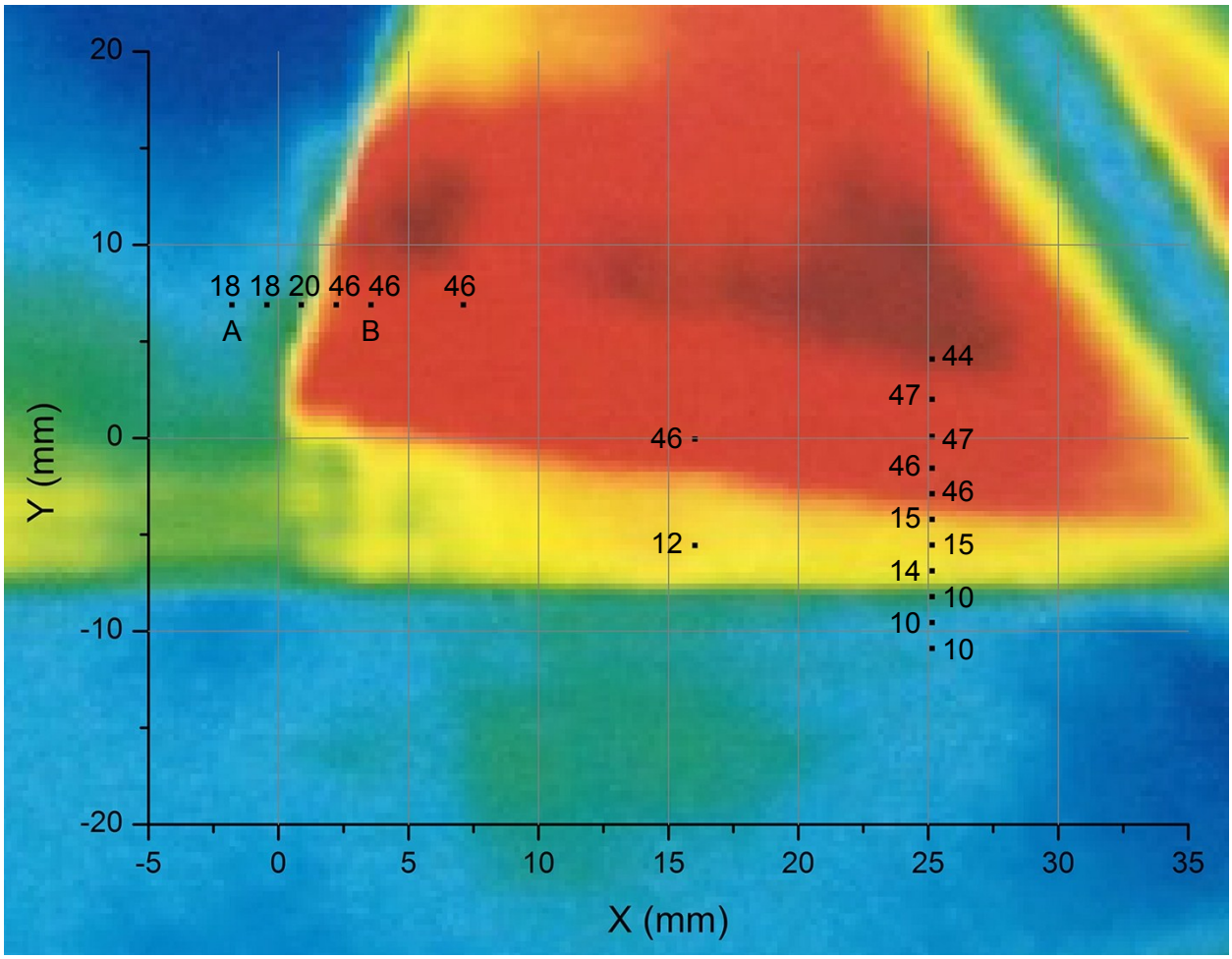


**Figure SI2:** Deuterium exchange layer thickness $\Lambda$ determined from μ-Raman confocal spectroscopy in different parts of the DKDP slab corresponding to Fig. 2. Points labeled A & B (also shown fig. 2) are the one used for the surface modeling.

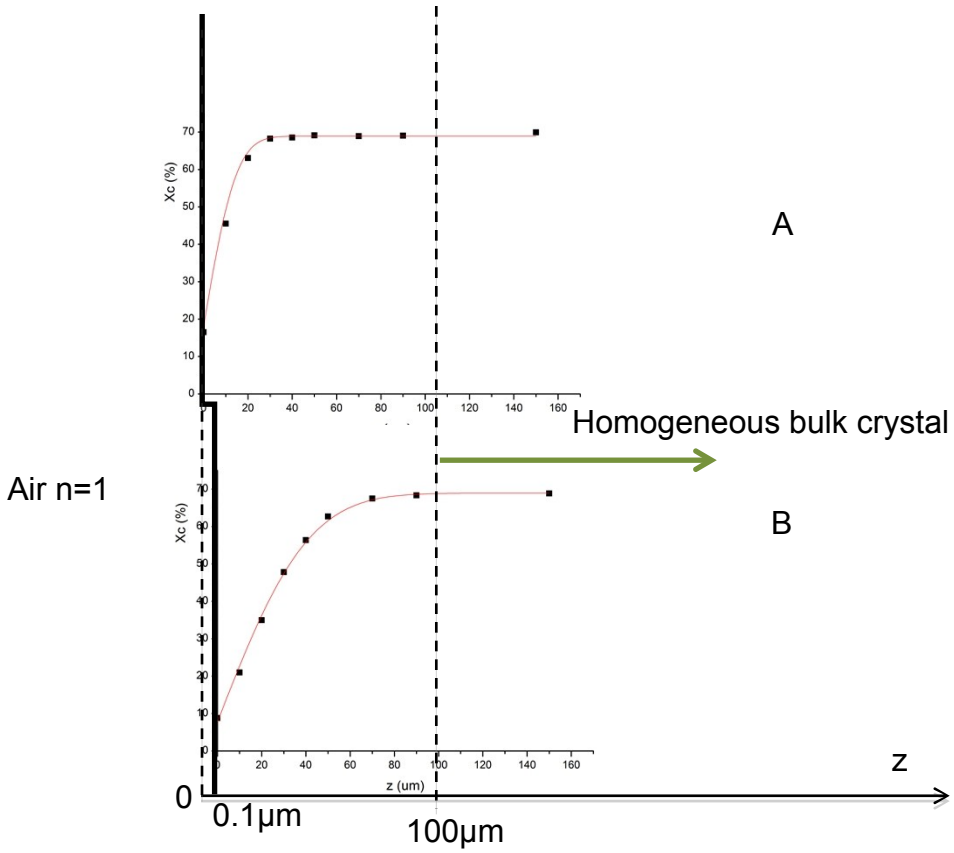


**Figure SI3:** Schematic representation of the model used for the slab surface and subsurface at the two points A&B (Fig 2 & SI2.) accounting for differences in surface levels (100nm lower in B) and in deuterium exchange layers (experimental deuterium content points in black and in red curves fitted using parameters of Table 1.)