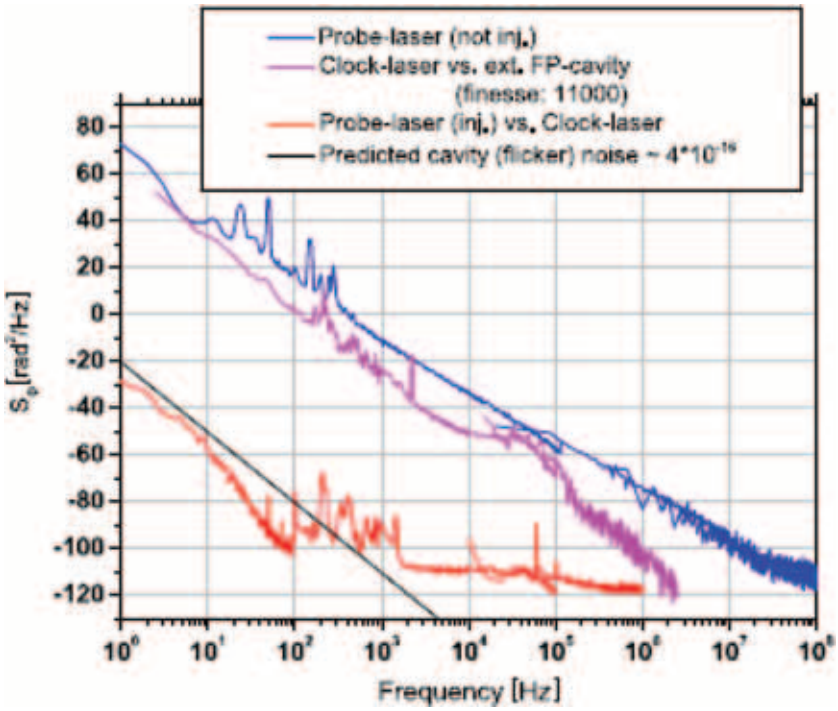

Fig. 3 – Phase noise power spectral density of the Yb-doped fiber laser and of the semiconductor DFB laser used as the clock laser at 1062.5 nm. Phase noise is measured at the optical carrier frequency of 2.8 × 1014 Hz. The graph also shows the phase noise between the fiber laser and the semiconductor laser injection-locked with the fiber laser. The solid black indicates the phase noise PSD equivalent to the predicted thermal noise limit of the cavity (flicker frequency noise behavior at the level of 3 parts in 1016).

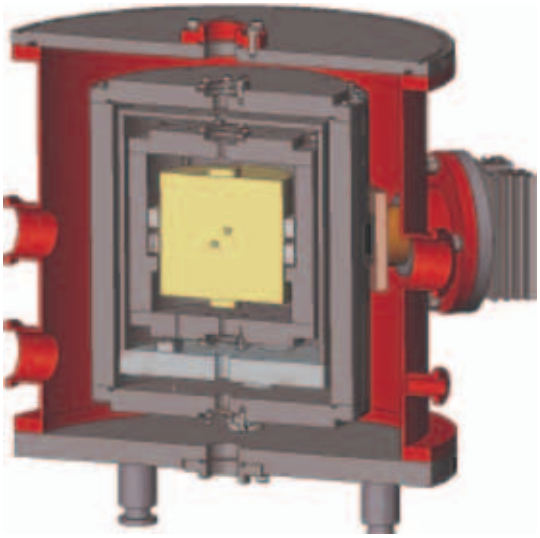

Fig. 4 – A sectioned view of the ultra-stable cavity assembly.

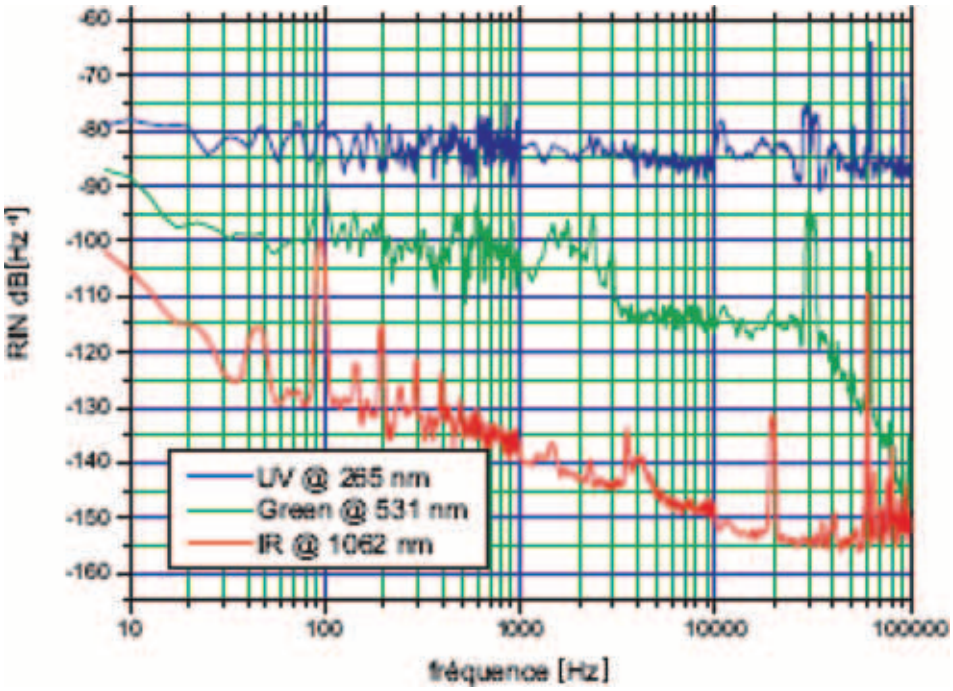

Fig. 5 – The relative intensity noise (RIN) of the injection-locked DFB laser and of the frequency doubled 531 nm and frequency quadrupled 265.6 nm radiations.