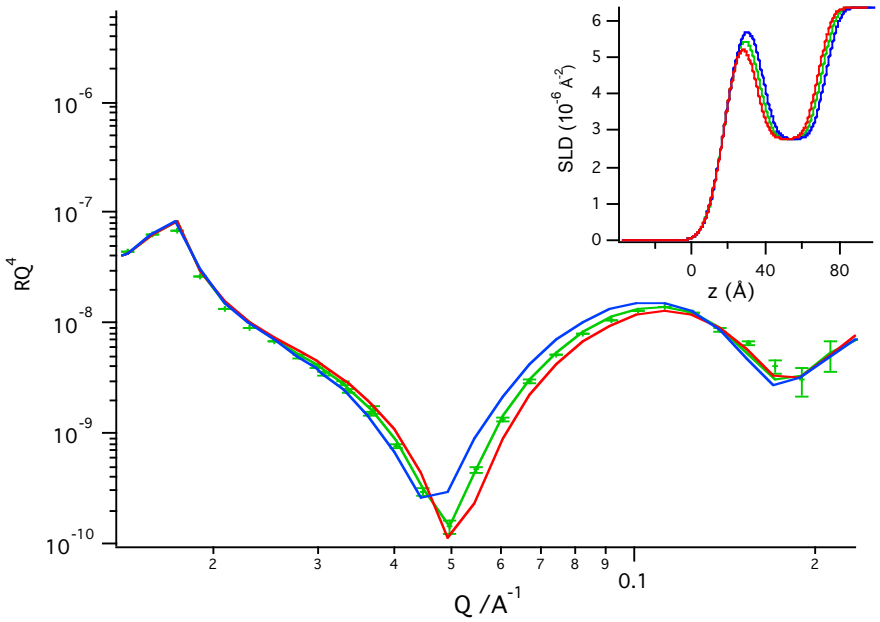
Supporting information for Aligning Nanodiscs at the Air-Water Interface,

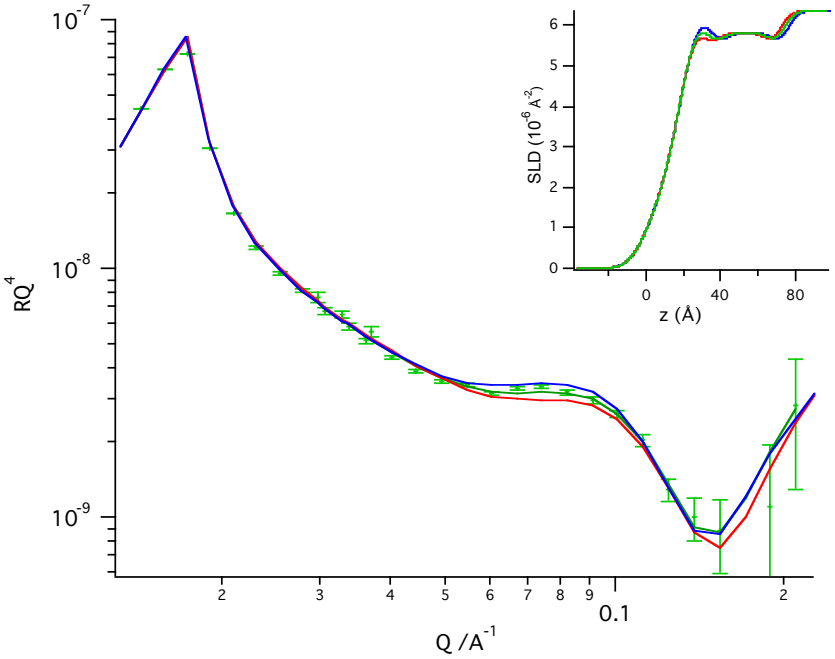
a Neutron Reflectivity Study. Wadsäter et al.

Below we present a series of figures in which each of the parameters fitted was varied separately to values larger than the errors listed in Table 2.

Figure SI1. Effect of variable thickness of D_2O layer. 13 Å (red), 15 Å (green), 17(blue)

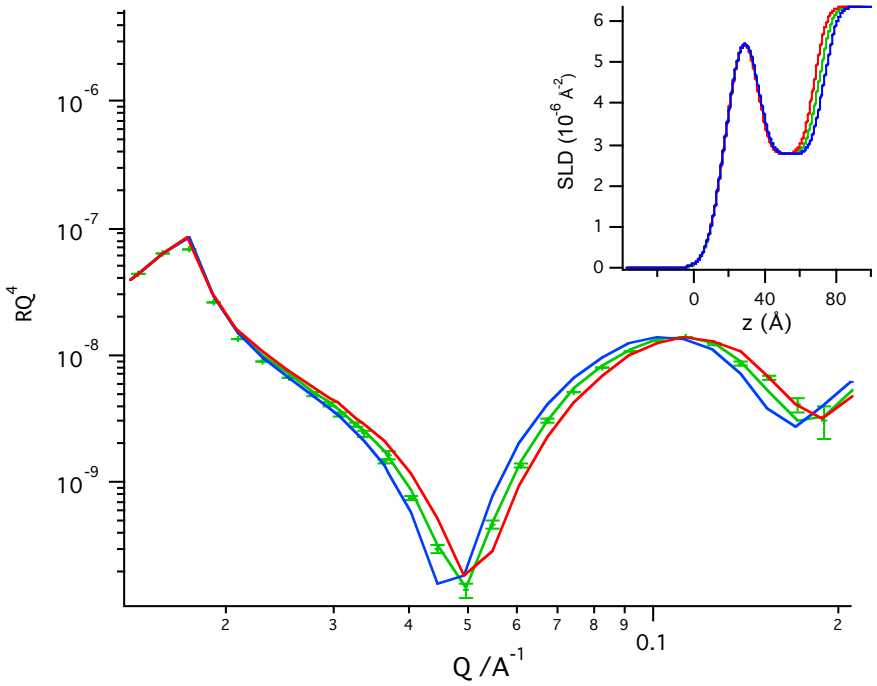


h-ND

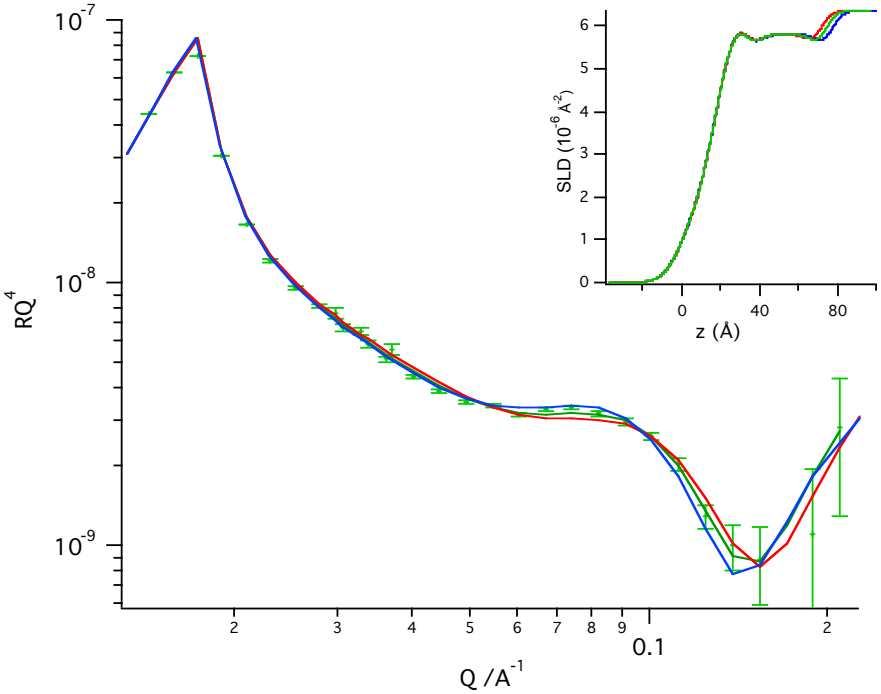


d-ND

Figure SI2. Effect of variable thickness of the nanodiscs layer: t =43.8 Å , heads=6.7 Å, tails=30.5 Å(Blue), t =40.9 Å , heads=6.2 Å, tails=28.5 Å (Green), t =38.1 Å , heads=5.8 Å, tails=26.5 Å (Red)

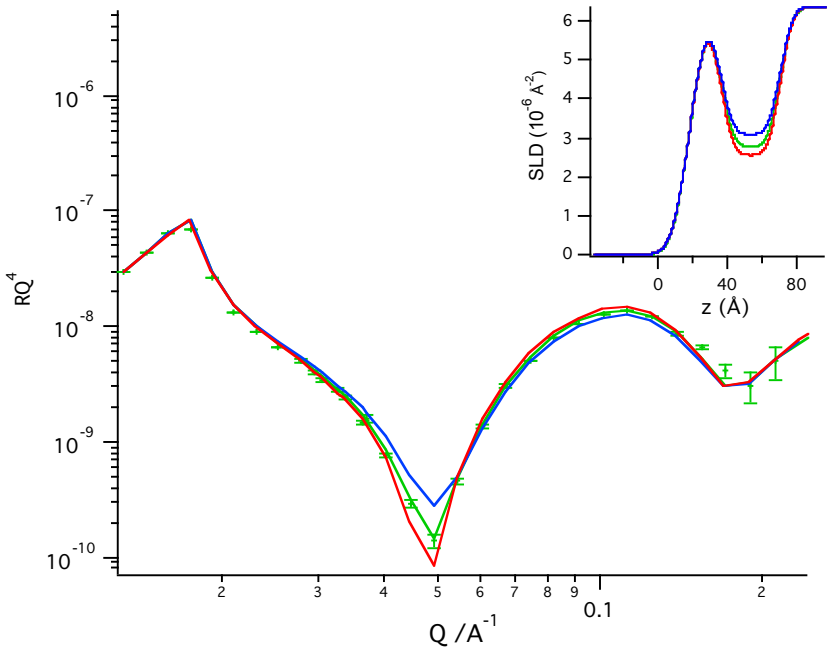


h-ND

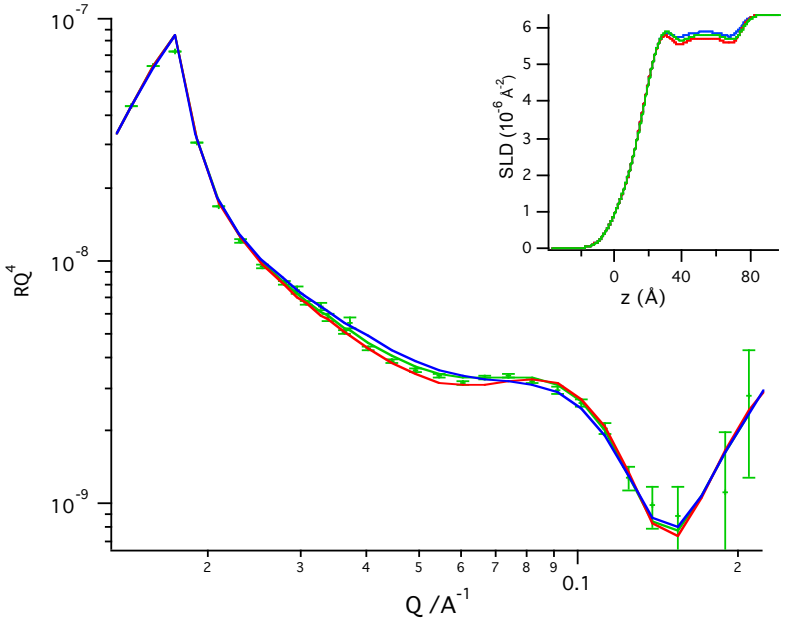


d-ND

Figure SI3. Effect of nanodiscs layer surface area coverage of h-ND: 61% (Blue), 66 % (Green), 71 % (Red) and d-ND%: 30% (Blue), 35% (Green), 40% (Red)

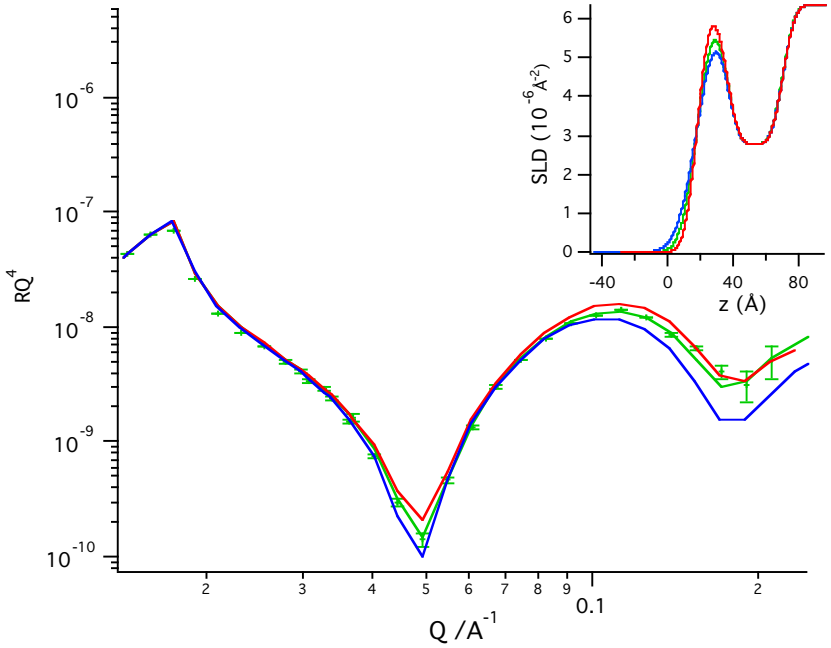


h-ND

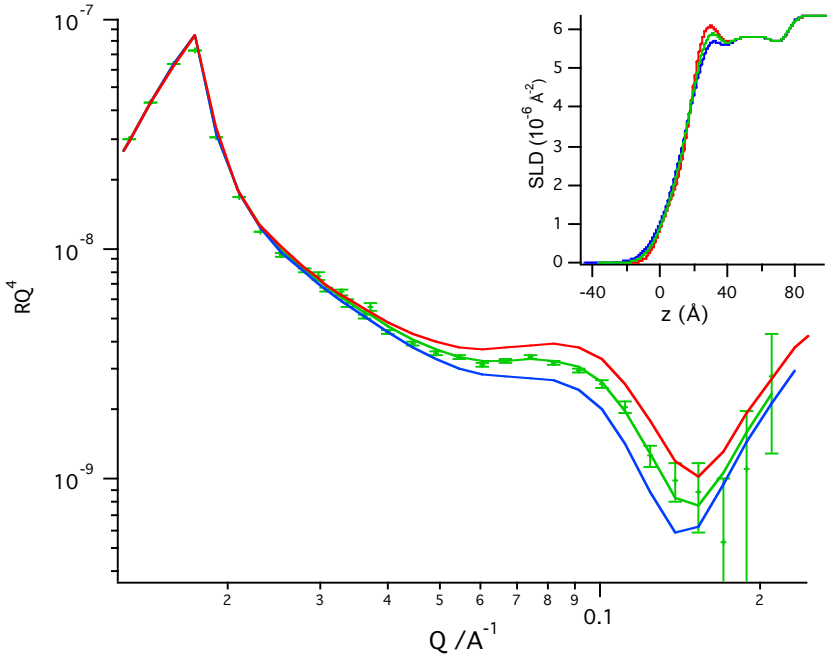


d-ND

Figure SI4. Effect of roughness of surfactant layer: 10 Å (Blue), 8 Å (Green), 6 Å (Red)

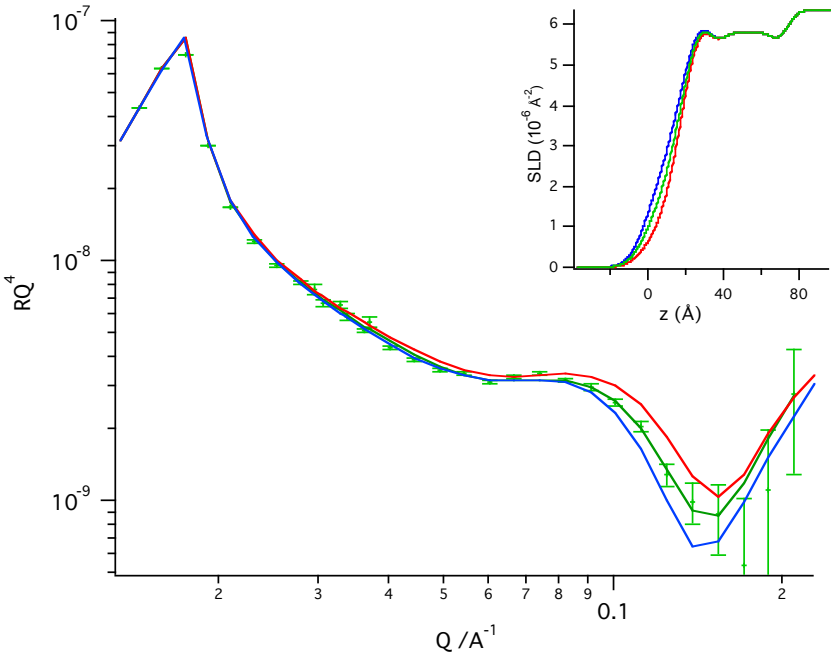


h-ND



d-ND

Figure SI5. Effect of SLD in DODAB layer for d-ND: 2.5 (Blue), 1.8 (Green), 1.1 (Red) (*10^{-6} Å^{-2})



d-ND

Figure SI6. Neutron reflectivity for h-ND after 105 min of injection below an insoluble cationic surfactant film at the air/D_2O interface. This figures highlight the high reproducibility of this method. The experimental conditions are identical but the experiments were performed in either the beam line Figaro/ILL (red) or 4B/.SNS (blue). Both measurements are made for a buffer enriched with 10 mM NaCl and the nanodiscs were injected at 35 mN/m instead of 25 mN/m as for the data shown in the previous figures. This figure shows the high reproducibility of this system.