

Supporting Information

Electrolytes at Interfaces: Accessing the First Nanometers Using X-ray Standing Waves

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Fitting parameters for the intensity fluorescence profiles.

Table1.

KCl/CsCl - 1mM – sample thickness 2850nm					
Element	χ^2	Bulk intensity	Distribution center	Gaussian intensity	Distribution width
Cl	1.38470764917e-13	3500.0	4e-10	6100000.0	3e-10
K ⁺	1.60761377038e-12	26000.0	2.3e-09	2660000.0	3e-10
Cs ⁺	9.58101287097e-12	86000.0	2.7e-09	240000.0	3e-10
KCl/KI - 10mM– sample thickness 250nm					
Element	χ^2	Bulk intensity	Distribution center	Gaussian intensity	Distribution width
Cl	3.62499735301e-14	12000.0	10e-10	5800000.0	3e-10
K ⁺	2.05963691888e-12	340000.0	9e-10	260000000.0	3e-10
I	1.58886462558e-12	304000.0	1.15e-09	210000000.0	3e-10
KCl/CsCl - 10mM– sample thickness 50nm					
Element	χ^2	Bulk intensity	Distribution center	Gaussian intensity	Distribution width
Cl	1.50054004061e-13	79799.0	1.3e-09	5250000.0	3e-10
K ⁺	2.18166868968e-12	1045000.0	1.2e-09	1950000.0	3e-10
Cs ⁺	1.05948627026e-11	2070000.0	1.25e-09	437000000.0	3e-10
KCl/KI - 1mM– sample thickness 120nm					
Element	χ^2	Bulk intensity	Distribution center	Gaussian intensity	Distribution width
Cl	2.27770568154e-14	9500.0	7e-10	1500000.0	3e-10
K ⁺	6.8041650254e-13	66000.0	5e-10	70000000.0	3e-10
I	1.41055008938e-13	130000.0	9.5e-10	13000000.0	3e-10

Goodness of the fitting is defined as the sum of squares between experimental and calculated values divided by the number of points.