Supplementary Data for

"Effects of anions on underpotential deposition behavior of Cu at polycrystalline Pt"

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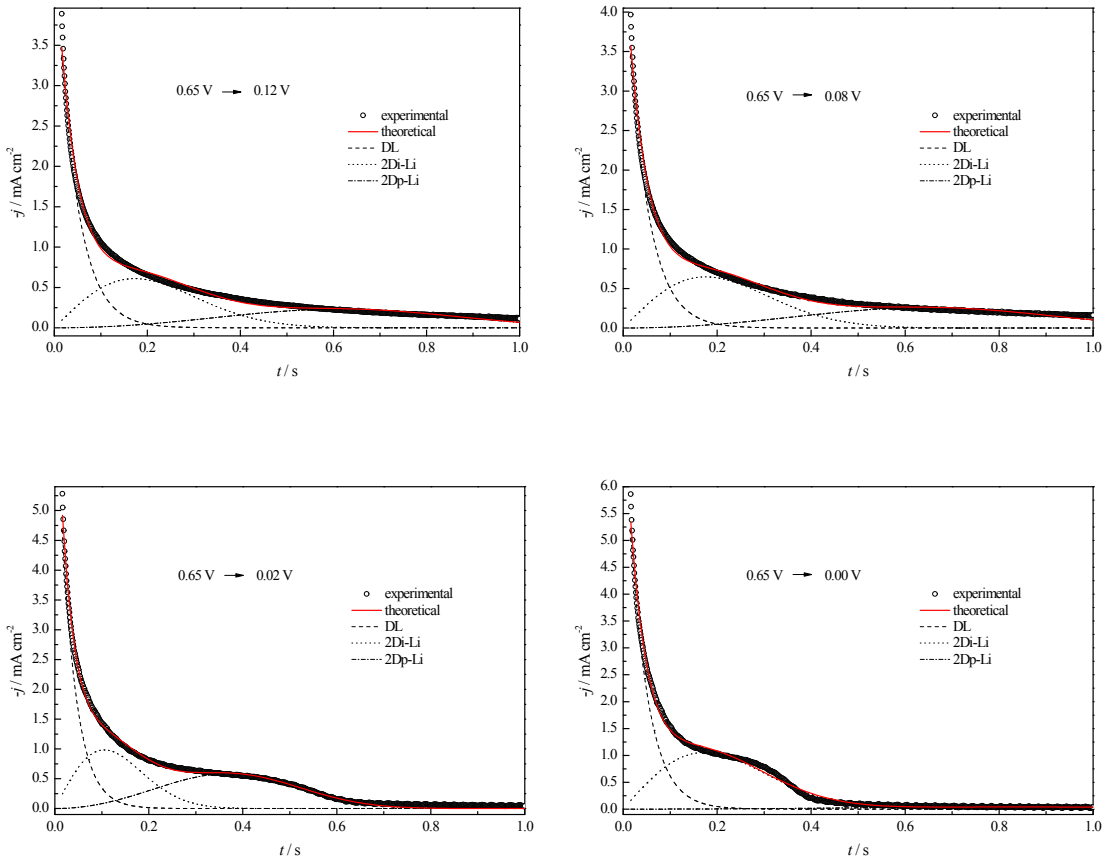

Fig. S1 Experimental current density transients recorded for Cu upd at pc Pt in 5.0 mM $CuSO_4$+0.5 M H_2SO_4, and theoretical non-linear fitting with Eq. (13) at some selected potentials

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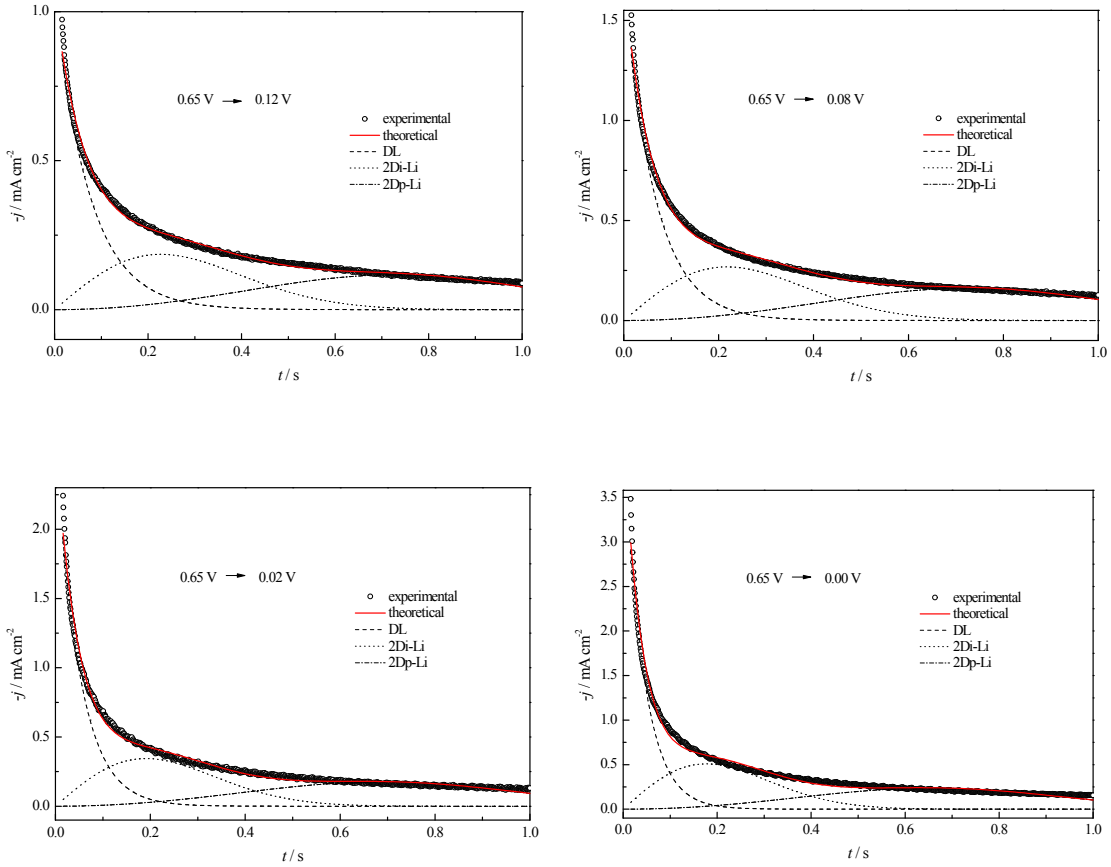

Fig. S2 Experimental current density transients recorded for Cu upd at pc Pt in 5.0 mM $Cu(ClO_4)_2$+0.5 M $HClO_4$, and theoretical non-linear fitting with Eq. (13) at some selected potentials

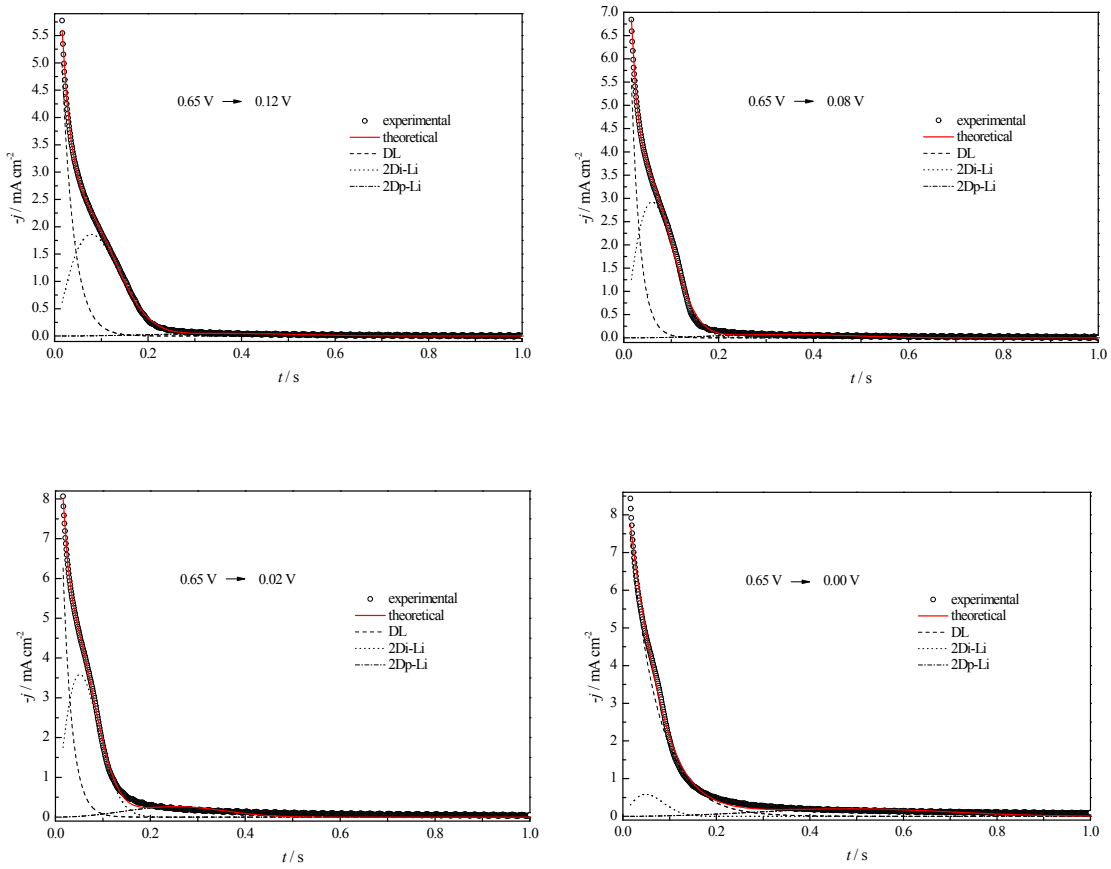

Fig. S3 Experimental current density transients recorded for Cu upd at pc Pt in 5.0 mM $Cu(ClO_4)_2$+0.5 M $HClO_4$+1.0 mM NaCl, and theoretical non-linear fitting with Eq. (13) at some selected potentials

Table S1 The best fitting results through non-linear fitting with Eq. (13) to the experimental transients for Cu upd at pc Pt in 5.0 mM $CuSO_4$+ 0.5 M H_2SO_4 shown in **Fig. 6** and **Fig. S1**

E (V)	k_1 (mA cm^{-2} s^{-1})	k_2 (s^{-2})	k_3 (mA cm^{-2} s^{-2})	k_4 (s^{-3})	k_5 (mA cm^{-2})	k_6 (s^{-1})
0.16	4.651	16.749	1.127	3.032	4.443	23.873
0.12	5.825	16.789	1.194	2.867	4.904	23.263
0.08	6.087	16.253	1.204	2.462	5.023	23.017
0.04	10.466	19.824	0.143	1.791	7.423	23.509
0.02	15.448	45.330	8.340	13.149	7.681	31.052
0.00	10.040	16.684	0.109	1.096	7.777	25.319

Table S2 The best fitting results through non-linear fitting with Eq. (13) to the experimental transients for Cu upd at pc Pt in 5.0 mM $Cu(ClO_4)_2$+0.5 M $HClO_4$ shown in **Fig. 6** and **Fig. S2**

E (V)	k_1 (mA cm^{-2} s^{-1})	k_2 (s^{-2})	k_3 (mA cm^{-2} s^{-2})	k_4 (s^{-3})	k_5 (mA cm^{-2})	k_6 (s^{-1})
0.16	1.527	9.684	0.506	1.674	1.195	13.127
0.12	1.349	9.707	0.430	1.730	1.044	13.262
0.08	2.033	10.593	0.595	1.737	1.697	15.265
0.04	2.426	11.749	0.647	1.803	2.074	16.937
0.02	2.974	13.723	0.723	2.046	2.642	19.840
0.00	4.749	16.057	1.066	2.334	4.255	23.652

Table S3 The best fitting results through non-linear fitting with Eq. (13) to the experimental transients for Cu upd at pc Pt in 5.0 mM $Cu(ClO_4)_2$+0.5 M $HClO_4$+1.0 mM NaCl shown in **Fig. 6** and **Fig. S3**

E (V)	k_1 (mA cm^{-2} s^{-1})	k_2 (s^{-2})	k_3 (mA cm^{-2} s^{-2})	k_4 (s^{-3})	k_5 (mA cm^{-2})	k_6 (s^{-1})
0.16	19.596	48.419	1.017	15.231	7.444	33.037
0.12	39.029	81.034	0.671	13.193	9.331	39.264
0.08	81.049	141.329	1.262	16.858	13.308	54.245
0.04	126.793	204.639	4.387	30.942	16.103	62.839
0.02	114.769	187.980	7.987	41.039	14.479	52.348
0.00	19.677	208.898	1.554	5.449	9.682	16.498