Electronic Supplementary Material (ESI) for Soft Matter.

Supporting Information

Structure, dynamics, and morphology of nanostructured water confined between parallel graphene surfaces and into carbon nanotube by applying magnetic and electric fields

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Table S1. The lateral and perpendicular components of the pressure tensor in the graphene system

Field	Density *(g/cc)*	Number of water molecules	$P_{\parallel}$ (katm)	$P^{\perp}$ (katm)
No fild	0.2	54	-0.69396	-0.02288
	0.4	110	-1.4601	-0.06222
	0.6	165	-2.7468	-0.00876
	0.8	220	-5.53105	-0.10202
	1	275	-6.26185	-1.8467
Elec 1	0.2	54	0.030631	-5.7616
	0.4	110	-0.04244	-10.581
	0.6	165	-0.44551	-13.766
	0.8	220	-1.70311	-17.434
	1	275	-2.84425	-22.699
Elec 2	0.2	54	-0.04108	-0.84602
	0.4	110	-0.85379	-1.0897
	0.6	165	-2.068	-1.1424
	0.8	220	-4.03705	-1.5527
	1	275	-5.32715	-3.4658
Mag 1	0.2	54	-0.71228	-0.02532
	0.4	110	-1.48835	-0.06107
	0.6	165	-5.149	-0.2065
	0.8	220	-2.66465	-0.01986
	1	275	-6.29755	-1.6919
Mag 2	0.2	54	-0.69379	-0.02219
	0.4	110	-1.4582	-0.06236
	0.6	165	-2.684	-0.01337
	0.8	220	-5.1217	-0.20922
	1	275	-6.18725	-1.8965

Table S2. The components of the pressure tensor in the CNT system

Field	P_{XX} (katm)	P_{YY} (katm)	P_{ZZ} (katm)
No fild	-0.43315	-0.72143	-0.43286
E_X	-0.57229	-0.58736	-0.36452
E_Y	-0.24869	-1.2869	-0.24818
E_Z	-0.35589	-0.59769	-0.5681
M_X	-0.42746	-0.76693	-0.42604
M_Y	-0.42073	-0.71553	-0.42091
M_Z	-0.4202	-0.73467	-0.41999

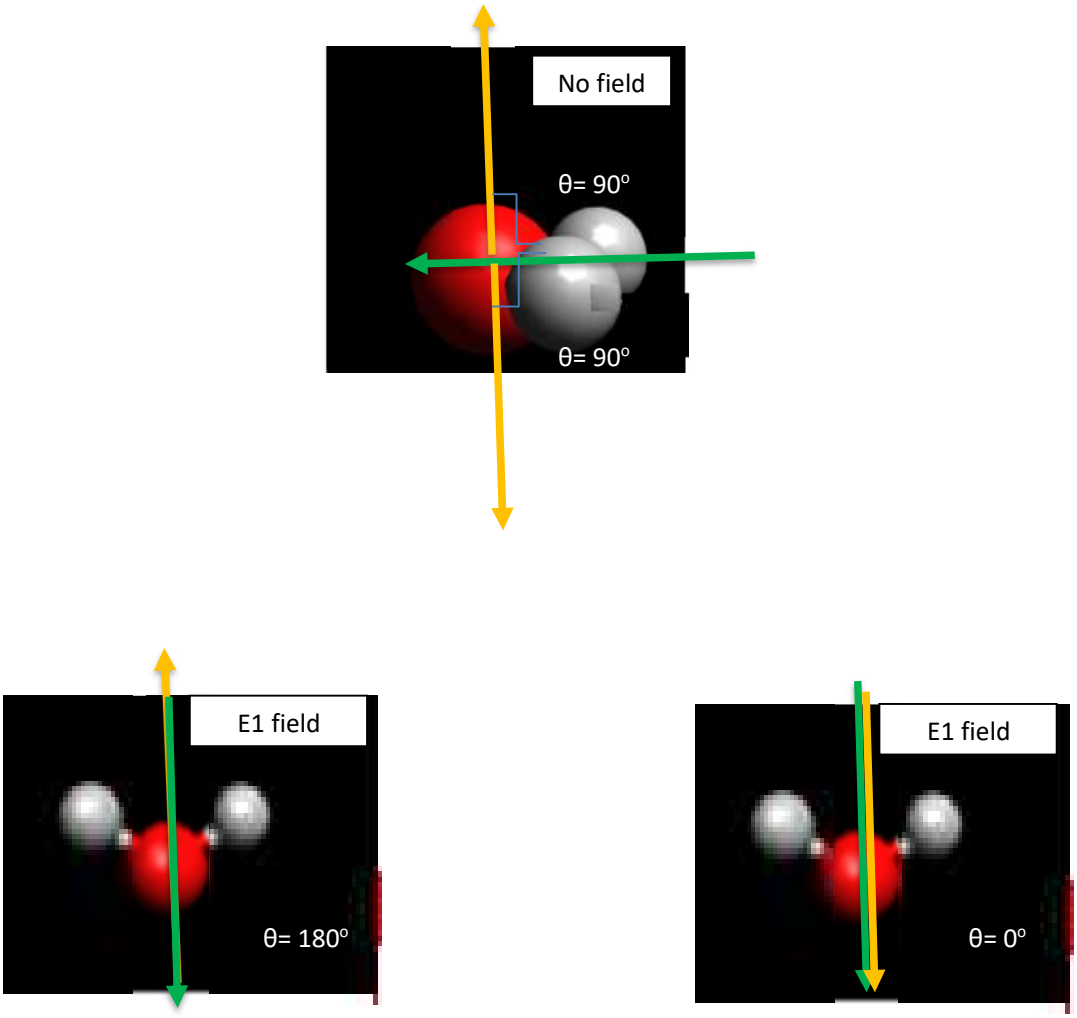

Fig. S1. Definition of the angle between the vector perpendicular to the surface of water molecule in the up or down direction (as the reference vector) and the dipole moment vector of water molecule (as the observed vector).

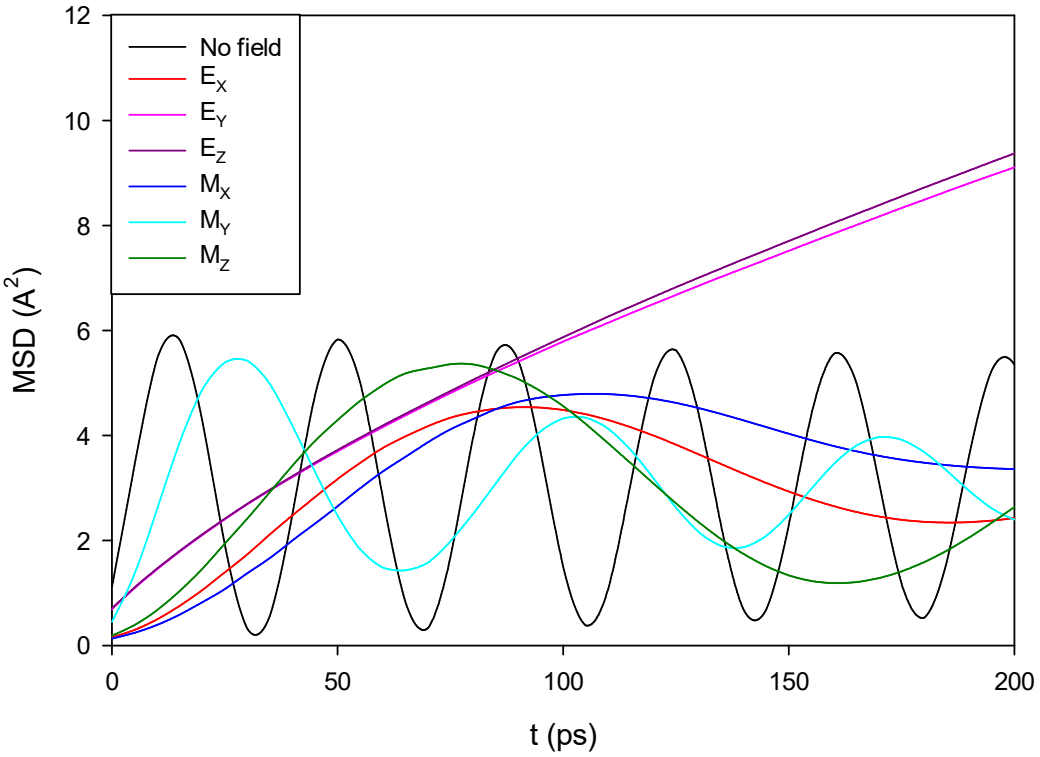

Fig. S2. The MSD curves of the confined water molecules into CNT at the different external fields.