

Supporting Information

Simulation study of conformation and dynamics of substrate-supported ring and linear polymer films

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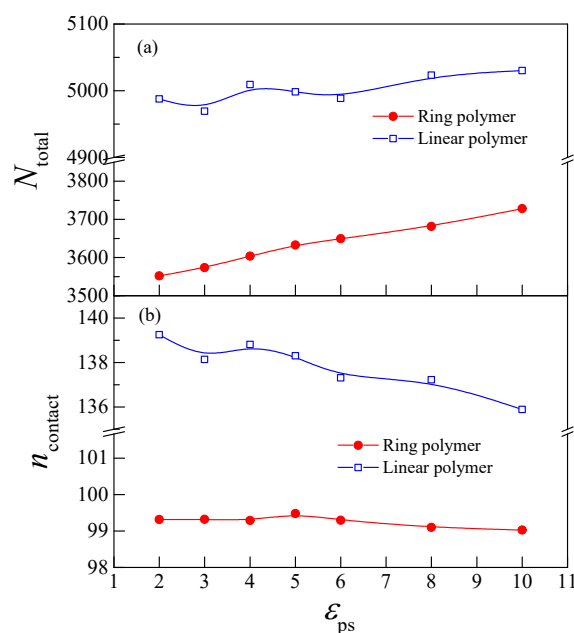


Fig. S1. Effect of the substrate attraction strength ϵ_{ps} on (a) the total number of monomer-monomer contact pairs, N_{total} , between adsorbed and non-adsorbed polymer chains, and (b) the number of non-adsorbed polymer chains, $n_{contact}$, contact with adsorbed chains for ring and linear polymer films. Polymer length $N = 32$.

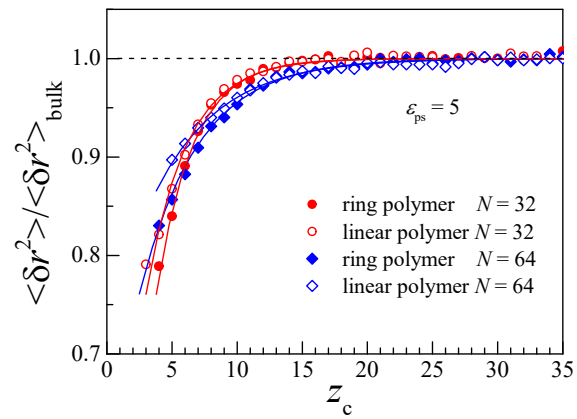


Fig. S2 Plot of the normalized layer-resolved $\langle \delta r^2 \rangle / \langle \delta r^2 \rangle_{\text{bulk}}$ of the non-adsorbed chains in both ring and linear polymer films of $N = 32$ and 64. Substrate attraction strength $\epsilon_{ps} = 5$.

Original simulation data in Figures 2-9 in our manuscript

1. Figure 2

Monomer density profiles at $\epsilon_{ps} = 2$			
$\rho(z)$ for ring polymer film		$\rho(z)$ for linear polymer film	
z	$\rho(z)$	z	$\rho(z)$
0.05	0	0.05	0
0.15	0	0.15	0
0.25	0	0.25	0
0.35	0	0.35	0
0.45	0	0.45	0
0.55	0	0.55	0
0.65	0.005	0.65	0.00454
0.75	0.819	0.75	0.80638
0.85	2.26639	0.85	2.24495
0.95	1.71715	0.95	1.70712
1.05	1.03863	1.05	1.03116
1.15	0.68754	1.15	0.68126
1.25	0.53071	1.25	0.524
1.35	0.47858	1.35	0.46958
1.45	0.50552	1.45	0.50401
1.55	0.6295	1.55	0.61897
1.65	0.8667	1.65	0.84853
1.75	1.05913	1.75	1.03223
1.85	1.01063	1.85	0.9967
1.95	0.87197	1.95	0.86975
2.05	0.75605	2.05	0.75265
2.15	0.68245	2.15	0.68293
2.25	0.65616	2.25	0.65299
2.35	0.66856	2.35	0.66518
2.45	0.71142	2.45	0.70739
2.55	0.77899	2.55	0.76459
2.65	0.8343	2.65	0.81433
2.75	0.84429	2.75	0.82764
2.85	0.81681	2.85	0.8083
2.95	0.77617	2.95	0.76521
3.05	0.74334	3.05	0.73937
3.15	0.72903	3.15	0.72458
3.25	0.72667	3.25	0.72374
3.35	0.7412	3.35	0.73054
3.45	0.76063	3.45	0.7465
3.55	0.77329	3.55	0.76675

3.65	0.7814	3.65	0.77326
3.75	0.77978	3.75	0.7684
3.85	0.77011	3.85	0.76216
3.95	0.75689	3.95	0.75138
4.05	0.75276	4.05	0.74754
4.15	0.74865	4.15	0.7436
4.25	0.75294	4.25	0.74381
4.35	0.76073	4.35	0.74983
4.45	0.76421	4.45	0.75561
4.55	0.76426	4.55	0.75526
4.65	0.7664	4.65	0.76204
4.75	0.76449	4.75	0.75668
4.85	0.76156	4.85	0.756
4.95	0.75841	4.95	0.74668
5.05	0.7569	5.05	0.75087
5.15	0.75709	5.15	0.74714
5.25	0.76085	5.25	0.7509
5.35	0.7585	5.35	0.75406
5.45	0.76188	5.45	0.75299
5.55	0.76095	5.55	0.75067
5.65	0.7622	5.65	0.75874
5.75	0.76341	5.75	0.75234
5.85	0.75765	5.85	0.75234
5.95	0.75965	5.95	0.75389
6.05	0.7644	6.05	0.75197
6.15	0.75749	6.15	0.75258
6.25	0.75958	6.25	0.75129
6.35	0.76178	6.35	0.74837
6.45	0.75986	6.45	0.75382
6.55	0.76323	6.55	0.75314
6.65	0.76085	6.65	0.75022
6.75	0.76202	6.75	0.75631
6.85	0.75825	6.85	0.75278
6.95	0.76102	6.95	0.7574
7.05	0.76167	7.05	0.75175
7.15	0.75749	7.15	0.75103
7.25	0.75869	7.25	0.75301
7.35	0.76234	7.35	0.74931
7.45	0.76243	7.45	0.75372
7.55	0.76378	7.55	0.75403
7.65	0.76093	7.65	0.75298
7.75	0.76179	7.75	0.75238
7.85	0.75762	7.85	0.75232

7.95	0.75953	7.95	0.75129
8.05	0.76099	8.05	0.75145
8.15	0.76342	8.15	0.75303
8.25	0.75742	8.25	0.75068
8.35	0.76306	8.35	0.75224
8.45	0.76193	8.45	0.75262
8.55	0.76079	8.55	0.75511
8.65	0.7606	8.65	0.75329
8.75	0.76085	8.75	0.75136
8.85	0.75939	8.85	0.74977
8.95	0.76329	8.95	0.75224
9.05	0.76098	9.05	0.74983
9.15	0.75997	9.15	0.75559
9.25	0.75911	9.25	0.75609
9.35	0.76092	9.35	0.75098
9.45	0.76143	9.45	0.75312
9.55	0.76021	9.55	0.75331
9.65	0.7617	9.65	0.75083
9.75	0.76347	9.75	0.75028
9.85	0.76247	9.85	0.75221
9.95	0.76087	9.95	0.74984
10.05	0.76052	10.05	0.75394
10.15	0.75925	10.15	0.75132
10.25	0.76411	10.25	0.75365
10.35	0.76097	10.35	0.75279
10.45	0.75776	10.45	0.75463
10.55	0.76138	10.55	0.7499
10.65	0.7614	10.65	0.75563
10.75	0.76169	10.75	0.75421
10.85	0.76092	10.85	0.75226
10.95	0.76144	10.95	0.75182
11.05	0.76445	11.05	0.7564
11.15	0.75933	11.15	0.75065
11.25	0.76099	11.25	0.74918
11.35	0.76073	11.35	0.75483
11.45	0.76181	11.45	0.75035
11.55	0.75863	11.55	0.75218
11.65	0.76333	11.65	0.74947
11.75	0.76176	11.75	0.75296
11.85	0.7621	11.85	0.75831
11.95	0.76184	11.95	0.75173
12.05	0.76042	12.05	0.75443
12.15	0.7611	12.15	0.75081

12.25	0.7603	12.25	0.7555
12.35	0.76024	12.35	0.75216
12.45	0.76203	12.45	0.75364
12.55	0.75827	12.55	0.7513
12.65	0.76457	12.65	0.74742
12.75	0.75944	12.75	0.75622
12.85	0.76164	12.85	0.75653
12.95	0.7602	12.95	0.75165
13.05	0.7607	13.05	0.75418
13.15	0.75983	13.15	0.75201
13.25	0.76207	13.25	0.74923
13.35	0.75928	13.35	0.75034
13.45	0.76121	13.45	0.75488
13.55	0.7636	13.55	0.75232
13.65	0.76242	13.65	0.75427
13.75	0.76052	13.75	0.75196
13.85	0.75928	13.85	0.75258
13.95	0.75798	13.95	0.75174
14.05	0.7603	14.05	0.75729
14.15	0.76182	14.15	0.75309
14.25	0.76073	14.25	0.75007
14.35	0.76419	14.35	0.75344
14.45	0.76187	14.45	0.7537
14.55	0.75938	14.55	0.7567
14.65	0.76095	14.65	0.75289
14.75	0.75836	14.75	0.75041
14.85	0.76309	14.85	0.75045
14.95	0.76	14.95	0.74995
15.05	0.76051	15.05	0.75461
15.15	0.76083	15.15	0.75131
15.25	0.76195	15.25	0.74897
15.35	0.76086	15.35	0.75513
15.45	0.7622	15.45	0.75202
15.55	0.76055	15.55	0.75166
15.65	0.75999	15.65	0.75793
15.75	0.76124	15.75	0.74954
15.85	0.75794	15.85	0.75142
15.95	0.76118	15.95	0.75226
16.05	0.76105	16.05	0.75358
16.15	0.76302	16.15	0.75163
16.25	0.7608	16.25	0.75334
16.35	0.76126	16.35	0.75259
16.45	0.75864	16.45	0.75369

16.55	0.7633	16.55	0.75459
16.65	0.75884	16.65	0.75127
16.75	0.76118	16.75	0.75221
16.85	0.7607	16.85	0.75148
16.95	0.76016	16.95	0.75514
17.05	0.76129	17.05	0.75134
17.15	0.76041	17.15	0.74821
17.25	0.76044	17.25	0.75127
17.35	0.76279	17.35	0.75313
17.45	0.76394	17.45	0.75294
17.55	0.76132	17.55	0.75295
17.65	0.76243	17.65	0.75595
17.75	0.75972	17.75	0.75204
17.85	0.76007	17.85	0.75717
17.95	0.76297	17.95	0.75092
18.05	0.75721	18.05	0.75091
18.15	0.76018	18.15	0.7532
18.25	0.7611	18.25	0.75363
18.35	0.76196	18.35	0.75255
18.45	0.76141	18.45	0.75406
18.55	0.76126	18.55	0.75518
18.65	0.76235	18.65	0.75411
18.75	0.7603	18.75	0.75306
18.85	0.76086	18.85	0.74625
18.95	0.76243	18.95	0.75335
19.05	0.76531	19.05	0.74803
19.15	0.76021	19.15	0.75363
19.25	0.75728	19.25	0.75647
19.35	0.76192	19.35	0.74967
19.45	0.76183	19.45	0.75228
19.55	0.7621	19.55	0.75501
19.65	0.75979	19.65	0.75244
19.75	0.7589	19.75	0.75298
19.85	0.76301	19.85	0.75182
19.95	0.76097	19.95	0.75051
20.05	0.76177	20.05	0.75303
20.15	0.75985	20.15	0.75533
20.25	0.7619	20.25	0.75151
20.35	0.76018	20.35	0.75575
20.45	0.75896	20.45	0.75542
20.55	0.76199	20.55	0.75246
20.65	0.76084	20.65	0.75083
20.75	0.76246	20.75	0.75089

20.85	0.75951	20.85	0.75471
20.95	0.76281	20.95	0.75296
21.05	0.75937	21.05	0.75475
21.15	0.76276	21.15	0.75143
21.25	0.76066	21.25	0.75578
21.35	0.76113	21.35	0.7544
21.45	0.75688	21.45	0.75025
21.55	0.76195	21.55	0.75146
21.65	0.7633	21.65	0.75268
21.75	0.76098	21.75	0.75514
21.85	0.76078	21.85	0.75372
21.95	0.76308	21.95	0.75454
22.05	0.76101	22.05	0.75314
22.15	0.76222	22.15	0.75118
22.25	0.76184	22.25	0.75325
22.35	0.75712	22.35	0.75253
22.45	0.75928	22.45	0.75252
22.55	0.76245	22.55	0.75313
22.65	0.76014	22.65	0.75201
22.75	0.76106	22.75	0.75494
22.85	0.76471	22.85	0.75595
22.95	0.76207	22.95	0.75406
23.05	0.76066	23.05	0.7542
23.15	0.75985	23.15	0.75402
23.25	0.75932	23.25	0.74879
23.35	0.75939	23.35	0.74995
23.45	0.76144	23.45	0.75162
23.55	0.76138	23.55	0.75012
23.65	0.76189	23.65	0.75234
23.75	0.76181	23.75	0.7522
23.85	0.75991	23.85	0.75589
23.95	0.76212	23.95	0.75566
24.05	0.76103	24.05	0.75366
24.15	0.7589	24.15	0.75428
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24.35	0.7615	24.35	0.75146
24.45	0.76039	24.45	0.7521
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25.05	0.76329	25.05	0.75339

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25.25	0.76285	25.25	0.75036
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25.45	0.76209	25.45	0.75451
25.55	0.76054	25.55	0.75175
25.65	0.76113	25.65	0.75331
25.75	0.76272	25.75	0.74957
25.85	0.76068	25.85	0.75528
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26.05	0.75987	26.05	0.75495
26.15	0.762	26.15	0.75468
26.25	0.7625	26.25	0.75161
26.35	0.76127	26.35	0.75396
26.45	0.76159	26.45	0.74932
26.55	0.76102	26.55	0.75321
26.65	0.75975	26.65	0.75416
26.75	0.76194	26.75	0.75535
26.85	0.76194	26.85	0.7549
26.95	0.75848	26.95	0.74855
27.05	0.76456	27.05	0.7504
27.15	0.76117	27.15	0.75632
27.25	0.76157	27.25	0.75206
27.35	0.76173	27.35	0.75353
27.45	0.76111	27.45	0.74954
27.55	0.76024	27.55	0.75394
27.65	0.75975	27.65	0.75331
27.75	0.76264	27.75	0.7507
27.85	0.76283	27.85	0.75587
27.95	0.76327	27.95	0.75025
28.05	0.75733	28.05	0.75064
28.15	0.76033	28.15	0.75179
28.25	0.75778	28.25	0.75798
28.35	0.76456	28.35	0.74928
28.45	0.7607	28.45	0.75421
28.55	0.76097	28.55	0.75267
28.65	0.76158	28.65	0.75666
28.75	0.76016	28.75	0.75149
28.85	0.76028	28.85	0.7547
28.95	0.76246	28.95	0.7511
29.05	0.76439	29.05	0.75487
29.15	0.7615	29.15	0.75401
29.25	0.76094	29.25	0.74874
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29.45	0.75761	29.45	0.75344
29.55	0.76138	29.55	0.75255
29.65	0.76065	29.65	0.75265
29.75	0.76244	29.75	0.75194
29.85	0.76153	29.85	0.75434
29.95	0.76297	29.95	0.75322
30.05	0.76075	30.05	0.75386
30.15	0.76271	30.15	0.75377
30.25	0.76067	30.25	0.75252
30.35	0.76031	30.35	0.75241
30.45	0.75937	30.45	0.75301
30.55	0.76107	30.55	0.75558
30.65	0.76258	30.65	0.7518
30.75	0.76094	30.75	0.75148
30.85	0.76055	30.85	0.7527
30.95	0.76133	30.95	0.75637
31.05	0.76222	31.05	0.75459
31.15	0.75997	31.15	0.75267
31.25	0.76521	31.25	0.7528
31.35	0.75885	31.35	0.75074
31.45	0.76141	31.45	0.75267
31.55	0.75691	31.55	0.752
31.65	0.76374	31.65	0.75456
31.75	0.76205	31.75	0.75376
31.85	0.75968	31.85	0.75127
31.95	0.76512	31.95	0.75585
32.05	0.76007	32.05	0.75504
32.15	0.76017	32.15	0.75667
32.25	0.76169	32.25	0.75024
32.35	0.76059	32.35	0.7529
32.45	0.76034	32.45	0.74883
32.55	0.76312	32.55	0.75155
32.65	0.7603	32.65	0.7527
32.75	0.76018	32.75	0.75388
32.85	0.76155	32.85	0.75345
32.95	0.76319	32.95	0.74997
33.05	0.76309	33.05	0.75574
33.15	0.76017	33.15	0.75533
33.25	0.76149	33.25	0.75169
33.35	0.76023	33.35	0.75341
33.45	0.76009	33.45	0.74873
33.55	0.75882	33.55	0.75661
33.65	0.76072	33.65	0.75403

33.75	0.76069	33.75	0.75388
33.85	0.76281	33.85	0.75093
33.95	0.76109	33.95	0.75046
34.05	0.76206	34.05	0.75289
34.15	0.76067	34.15	0.75211
34.25	0.76007	34.25	0.75491
34.35	0.7631	34.35	0.7538
34.45	0.76113	34.45	0.75245
34.55	0.76272	34.55	0.75433
34.65	0.75828	34.65	0.75293
34.75	0.76133	34.75	0.74919
34.85	0.75999	34.85	0.75287
34.95	0.76238	34.95	0.75306
35.05	0.76184	35.05	0.75418
35.15	0.76064	35.15	0.75307
35.25	0.75819	35.25	0.75394
35.35	0.76157	35.35	0.75256
35.45	0.7608	35.45	0.75559
35.55	0.76228	35.55	0.75389
35.65	0.76363	35.65	0.7521
35.75	0.75943	35.75	0.75267
35.85	0.76522	35.85	0.75391
35.95	0.76538	35.95	0.75244
36.05	0.76017	36.05	0.7527
36.15	0.76013	36.15	0.75563
36.25	0.75897	36.25	0.75466
36.35	0.76066	36.35	0.75107
36.45	0.76075	36.45	0.7513
36.55	0.76228	36.55	0.75455
36.65	0.76112	36.65	0.75482
36.75	0.76171	36.75	0.74983
36.85	0.76243	36.85	0.75062
36.95	0.76224	36.95	0.75287
37.05	0.76056	37.05	0.75686
37.15	0.76494	37.15	0.75312
37.25	0.7581	37.25	0.75389
37.35	0.76185	37.35	0.75356
37.45	0.76269	37.45	0.75259
37.55	0.76412	37.55	0.75155
37.65	0.75936	37.65	0.75319
37.75	0.75882	37.75	0.75232
37.85	0.76173	37.85	0.75317
37.95	0.76311	37.95	0.75592

38.05	0.76371	38.05	0.75308
38.15	0.75842	38.15	0.75506
38.25	0.76225	38.25	0.75205
38.35	0.76278	38.35	0.75435
38.45	0.75702	38.45	0.74763
38.55	0.76266	38.55	0.74914
38.65	0.76078	38.65	0.75298
38.75	0.76026	38.75	0.75377
38.85	0.76155	38.85	0.75764
38.95	0.75904	38.95	0.75342
39.05	0.7599	39.05	0.75156
39.15	0.76172	39.15	0.75397
39.25	0.76095	39.25	0.75017
39.35	0.76229	39.35	0.75501
39.45	0.76117	39.45	0.75431
39.55	0.7601	39.55	0.75666
39.65	0.76082	39.65	0.74961
39.75	0.76193	39.75	0.75453
39.85	0.76151	39.85	0.75297
39.95	0.75844	39.95	0.75217
40.05	0.76096	40.05	0.75307
40.15	0.76389	40.15	0.75254
40.25	0.76117	40.25	0.75228
40.35	0.7592	40.35	0.75258
40.45	0.75893	40.45	0.75743
40.55	0.76073	40.55	0.7503
40.65	0.76062	40.65	0.75318
40.75	0.76073	40.75	0.75375
40.85	0.76384	40.85	0.7568
40.95	0.76226	40.95	0.75402
41.05	0.76078	41.05	0.75157
41.15	0.7632	41.15	0.74993
41.25	0.75721	41.25	0.75428
41.35	0.76372	41.35	0.75466
41.45	0.75959	41.45	0.75732
41.55	0.75814	41.55	0.75382
41.65	0.76164	41.65	0.74998
41.75	0.76114	41.75	0.75307
41.85	0.76168	41.85	0.75396
41.95	0.76028	41.95	0.755
42.05	0.76119	42.05	0.75208
42.15	0.76146	42.15	0.7504
42.25	0.76115	42.25	0.75563

42.35	0.763	42.35	0.75492
42.45	0.76173	42.45	0.75401
42.55	0.76217	42.55	0.75482
42.65	0.7592	42.65	0.75575
42.75	0.75895	42.75	0.75327
42.85	0.75997	42.85	0.75107
42.95	0.76317	42.95	0.74978
43.05	0.76426	43.05	0.75493
43.15	0.76121	43.15	0.7516
43.25	0.75982	43.25	0.74993
43.35	0.76123	43.35	0.75331
43.45	0.76056	43.45	0.75448
43.55	0.76275	43.55	0.75842
43.65	0.76233	43.65	0.75594
43.75	0.76164	43.75	0.75478
43.85	0.76199	43.85	0.7484
43.95	0.76083	43.95	0.74911
44.05	0.76242	44.05	0.7529
44.15	0.76166	44.15	0.74909
44.25	0.76129	44.25	0.75634
44.35	0.75966	44.35	0.75153
44.45	0.76291	44.45	0.75057
44.55	0.76277	44.55	0.75717
44.65	0.7597	44.65	0.75494
44.75	0.76077	44.75	0.75036
44.85	0.76231	44.85	0.75536
44.95	0.76071	44.95	0.75662
45.05	0.76326	45.05	0.75463
45.15	0.76034	45.15	0.74985
45.25	0.76124	45.25	0.74948
45.35	0.75961	45.35	0.75188
45.45	0.76285	45.45	0.75394
45.55	0.76075	45.55	0.75459
45.65	0.76226	45.65	0.75576
45.75	0.76107	45.75	0.75415
45.85	0.76124	45.85	0.75618
45.95	0.75986	45.95	0.75152
46.05	0.76058	46.05	0.75352
46.15	0.76329	46.15	0.7523
46.25	0.76185	46.25	0.75024
46.35	0.7612	46.35	0.74917
46.45	0.76087	46.45	0.75521
46.55	0.75972	46.55	0.75458

46.65	0.76094	46.65	0.75333
46.75	0.76492	46.75	0.75301
46.85	0.75993	46.85	0.75259
46.95	0.7612	46.95	0.75364
47.05	0.76237	47.05	0.75347
47.15	0.76176	47.15	0.75645
47.25	0.76127	47.25	0.75126
47.35	0.7615	47.35	0.7511
47.45	0.76055	47.45	0.75478
47.55	0.76144	47.55	0.7533
47.65	0.76196	47.65	0.75005
47.75	0.75878	47.75	0.75495
47.85	0.75958	47.85	0.75208
47.95	0.76225	47.95	0.75567
48.05	0.76303	48.05	0.7552
48.15	0.76165	48.15	0.7506
48.25	0.76014	48.25	0.75299
48.35	0.75863	48.35	0.75308
48.45	0.75719	48.45	0.75281
48.55	0.76085	48.55	0.75127
48.65	0.76217	48.65	0.75573
48.75	0.761	48.75	0.75798
48.85	0.76193	48.85	0.75088
48.95	0.76108	48.95	0.74886
49.05	0.75814	49.05	0.75225
49.15	0.75817	49.15	0.75821
49.25	0.7564	49.25	0.75248
49.35	0.76124	49.35	0.7506
49.45	0.75989	49.45	0.75719
49.55	0.75793	49.55	0.75319
49.65	0.75883	49.65	0.75128
49.75	0.75724	49.75	0.75079
49.85	0.75684	49.85	0.75089
49.95	0.75359	49.95	0.75296
50.05	0.75184	50.05	0.75103
50.15	0.75225	50.15	0.74945
50.25	0.74969	50.25	0.74997
50.35	0.74713	50.35	0.7527
50.45	0.74485	50.45	0.74723
50.55	0.74241	50.55	0.74207
50.65	0.73937	50.65	0.74365
50.75	0.73313	50.75	0.74346
50.85	0.73023	50.85	0.74343

50.95	0.72526	50.95	0.74042
51.05	0.7197	51.05	0.73509
51.15	0.71223	51.15	0.7351
51.25	0.70217	51.25	0.72877
51.35	0.69456	51.35	0.72197
51.45	0.68283	51.45	0.72017
51.55	0.67509	51.55	0.71355
51.65	0.66025	51.65	0.70801
51.75	0.64373	51.75	0.69943
51.85	0.63147	51.85	0.69106
51.95	0.61474	51.95	0.68337
52.05	0.59902	52.05	0.67188
52.15	0.57659	52.15	0.65948
52.25	0.55455	52.25	0.64543
52.35	0.53573	52.35	0.62915
52.45	0.51352	52.45	0.61758
52.55	0.48593	52.55	0.59793
52.65	0.46114	52.65	0.58214
52.75	0.4364	52.75	0.56259
52.85	0.40866	52.85	0.54207
52.95	0.3856	52.95	0.51637
53.05	0.35514	53.05	0.49579
53.15	0.32849	53.15	0.47052
53.25	0.30295	53.25	0.44582
53.35	0.27822	53.35	0.42273
53.45	0.25367	53.45	0.39574
53.55	0.22761	53.55	0.36949
53.65	0.20389	53.65	0.34157
53.75	0.18415	53.75	0.31964
53.85	0.16331	53.85	0.29318
53.95	0.14274	53.95	0.26725
54.05	0.12497	54.05	0.24317
54.15	0.11001	54.15	0.22065
54.25	0.09665	54.25	0.19837
54.35	0.08134	54.35	0.17793
54.45	0.06983	54.45	0.15829
54.55	0.05919	54.55	0.13987
54.65	0.05021	54.65	0.12284
54.75	0.04179	54.75	0.10754
54.85	0.03522	54.85	0.09302
54.95	0.02973	54.95	0.08042
55.05	0.02449	55.05	0.0687
55.15	0.01971	55.15	0.05905

55.25	0.01609	55.25	0.05023
55.35	0.01362	55.35	0.04287
55.45	0.01072	55.45	0.03564
55.55	0.00868	55.55	0.0306
55.65	0.00679	55.65	0.02464
55.75	0.00532	55.75	0.0206
55.85	0.00437	55.85	0.01776
55.95	0.00338	55.95	0.01396
56.05	0.0025	56.05	0.01181
56.15	0.00184	56.15	0.00904
56.25	0.00154	56.25	0.00776
56.35	0.00116	56.35	0.00614
56.45	0.001	56.45	0.0049
56.55	7.01E-04	56.55	0.00399
56.65	5.65E-04	56.65	0.00324
56.75	3.99E-04	56.75	0.00269
56.85	3.17E-04	56.85	0.00188
56.95	2.62E-04	56.95	0.00168
57.05	1.85E-04	57.05	0.00118
57.15	1.22E-04	57.15	0.00103
57.25	9.97E-05	57.25	6.70E-04
57.35	7.75E-05	57.35	7.34E-04
57.45	4.06E-05	57.45	4.49E-04
57.55	2.22E-05	57.55	4.81E-04
57.65	2.95E-05	57.65	3.79E-04
57.75	1.48E-05	57.75	2.15E-04
57.85	1.48E-05	57.85	1.64E-04
57.95	1.11E-05	57.95	1.64E-04
58.05	3.69E-06	58.05	1.33E-04
58.15	7.38E-06	58.15	8.85E-05
		58.25	8.85E-05
		58.35	4.43E-05
		58.45	6.32E-05
		58.55	3.79E-05
		58.65	1.27E-05
		58.75	1.90E-05
		58.85	3.16E-05
		58.95	2.53E-05
		59.05	6.32E-06
		59.15	0
		59.25	2.53E-05
		59.35	1.27E-05
		59.45	1.90E-05

		59.55	0
		59.65	1.90E-05
		59.75	0
		59.85	6.32E-06
		59.95	6.32E-06

2. The inset in Figure 2

Monomer density $\rho(z)$ for ring polymers near the substrate			
$\epsilon_{ps} = 2$		$\epsilon_{ps} = 10$	
z	$\rho(z)$	z	$\rho(z)$
0.05	0	0.05	0
0.15	0	0.15	0
0.25	0	0.25	0
0.35	0	0.35	0
0.45	0	0.45	0
0.55	0	0.55	0
0.65	0.005	0.65	0
0.75	0.819	0.75	0.47078
0.85	2.26639	0.85	7.40713
0.95	1.71715	0.95	2.34983
1.05	1.03863	1.05	0.24012
1.15	0.68754	1.15	0.03886
1.25	0.53071	1.25	0.01291
1.35	0.47858	1.35	0.00833
1.45	0.50552	1.45	0.02064
1.55	0.6295	1.55	0.25376
1.65	0.8667	1.65	1.5147
1.75	1.05913	1.75	2.45557
1.85	1.01063	1.85	1.71625
1.95	0.87197	1.95	0.94793
2.05	0.75605	2.05	0.55182
2.15	0.68245	2.15	0.38893
2.25	0.65616	2.25	0.35339
2.35	0.66856	2.35	0.41443
2.45	0.71142	2.45	0.59823
2.55	0.77899	2.55	0.90093
2.65	0.8343	2.65	1.12832
2.75	0.84429	2.75	1.07922
2.85	0.81681	2.85	0.902
2.95	0.77617	2.95	0.74729
3.05	0.74334	3.05	0.64949
3.15	0.72903	3.15	0.62066
3.25	0.72667	3.25	0.64301

3.35	0.7412	3.35	0.70919
3.45	0.76063	3.45	0.78944
3.55	0.77329	3.55	0.84794
3.65	0.7814	3.65	0.85234
3.75	0.77978	3.75	0.81636
3.85	0.77011	3.85	0.7672
3.95	0.75689	3.95	0.73099
4.05	0.75276	4.05	0.71325
4.15	0.74865	4.15	0.72122
4.25	0.75294	4.25	0.74084
4.35	0.76073	4.35	0.76452
4.45	0.76421	4.45	0.78023
4.55	0.76426	4.55	0.78686
4.65	0.7664	4.65	0.77828
4.75	0.76449	4.75	0.76767
4.85	0.76156	4.85	0.75519
4.95	0.75841	4.95	0.74642

3. Figure 3

Effect of the substrate attraction strength ϵ_{ps}								
$\langle n_{p,ads} \rangle$			$\langle M_{ads} \rangle$			ρ_c		
ϵ_{ps}	ring	linear	ϵ_{ps}	ring	linear	ϵ_{ps}	ring	linear
2	72.8056	82.3167	2	8.7328	7.6496	2	0.70644	0.69965
3	74.7703	83.8826	3	9.6478	8.55156	3	0.80152	0.79703
4	75.2975	84.5422	4	10.2771	9.1178	4	0.85982	0.85649
5	76.1898	85.6329	5	10.6384	9.4375	5	0.9006	0.89795
6	76.493	85.6665	6	10.9669	9.769	6	0.9321	0.92987
8	77.7635	86.3697	8	11.3495	10.1989	8	0.98064	0.97875
10	77.5279	86.2343	10	12.2108	10.9632	10	1.05186	1.05045

4. Figure 4

The ratio $\langle R_{g,z}^2 \rangle / \langle R_{g,xy}^2 \rangle$ for adsorbed chains			The ratio $\langle R_{g,z}^2 \rangle / \langle R_{g,xy}^2 \rangle$ for non-adsorbed chains		
z_c	ring	linear	z_c	ring	linear
1			1		
2	0.1535	0.09324	2		
3	0.46676	0.29171	3	0.15413	0.08417
4	0.83495	0.58314	4	0.31253	0.18764
5	1.48558	1.00653	5	0.44055	0.30149
6		1.54212	6	0.48987	0.39935
7		2.19998	7	0.50166	0.46007
			8	0.50335	0.49243
			9	0.50088	0.50226
			10	0.50088	0.4997
			11	0.50233	0.5054
			12	0.50021	0.50212
			13	0.50056	0.50144
			14	0.50101	0.4989
			15	0.49795	0.49781
			16	0.49694	0.49669
			17	0.50003	0.49805
			18	0.49867	0.49652
			19	0.49875	0.49862
			20	0.49972	0.50053

5. The inset in Figure 4

layer-resolved $\langle R_{g,z}^2 \rangle$, $\langle R_{g,xy}^2 \rangle$, and $\langle M_{ads} \rangle$ for the adsorbed ring chains			
z_c	$\langle R_{g,xy}^2 \rangle$	$\langle R_{g,z}^2 \rangle$	$\langle M_{ads} \rangle$
2	3.80895	0.58466	15.4664
3	2.97996	1.39093	7.48998
4	2.64676	2.20992	3.73934
5	2.30475	3.42388	2.40505

6. Figure 5

Evolution of the fraction of the remaining adsorbed chains, $C(t)$, with time								
	$\varepsilon_{ps} = 2$		$\varepsilon_{ps} = 5$		$\varepsilon_{ps} = 8$		$\varepsilon_{ps} = 10$	
t	ring	linear	ring	linear	ring	linear	ring	linear
0	1	1	1	1	1	1	1	1
20	0.95287	0.93075	0.98244	0.9746	0.99394	0.99123	0.99885	0.99814
40	0.93183	0.90322	0.97201	0.95975	0.98996	0.98496	0.99814	0.9969
60	0.91546	0.88403	0.96348	0.94808	0.98652	0.97963	0.99759	0.99586
80	0.90191	0.8686	0.95611	0.9385	0.98336	0.97486	0.9971	0.99492
100	0.89006	0.85602	0.94929	0.93016	0.98045	0.97044	0.99668	0.99404
120	0.87938	0.84538	0.94305	0.92261	0.97768	0.96641	0.9963	0.99323
140	0.86924	0.83557	0.93727	0.91566	0.97508	0.96249	0.99597	0.9925
160	0.86011	0.82664	0.93186	0.90936	0.97257	0.95888	0.99566	0.99182
180	0.85164	0.81863	0.92672	0.90352	0.97017	0.95548	0.99535	0.99119
200	0.84346	0.81034	0.92182	0.89788	0.9678	0.9523	0.99507	0.99058
220	0.83539	0.80311	0.91713	0.89252	0.9655	0.94925	0.99481	0.98999
240	0.82783	0.79624	0.91256	0.88757	0.96333	0.94625	0.99456	0.98944
260	0.8204	0.7896	0.9081	0.88274	0.9612	0.94344	0.99431	0.98887
280	0.81332	0.78369	0.90382	0.87799	0.95912	0.9407	0.99405	0.98835
300	0.8067	0.77756	0.89972	0.8735	0.9571	0.93801	0.99381	0.98783
320	0.7999	0.77198	0.89579	0.86922	0.95512	0.93545	0.99354	0.98733
340	0.7934	0.76619	0.89192	0.86497	0.95318	0.93302	0.99329	0.98683
360	0.78709	0.76053	0.88826	0.86084	0.95129	0.93063	0.99304	0.98634
380	0.781	0.75528	0.88472	0.85702	0.94945	0.9283	0.9928	0.98585
400	0.77502	0.75031	0.88121	0.85314	0.9476	0.926	0.99257	0.98536
420	0.76938	0.74574	0.87764	0.8494	0.94576	0.92373	0.99236	0.9849
440	0.76365	0.74076	0.87417	0.84591	0.94398	0.92152	0.99214	0.98445
460	0.75802	0.7361	0.87075	0.84237	0.94223	0.91939	0.99194	0.98402
480	0.75265	0.73197	0.86729	0.83894	0.94048	0.91731	0.99174	0.9836
500	0.74724	0.72767	0.86378	0.83555	0.93874	0.91535	0.99154	0.98319
520	0.74206	0.72397	0.86049	0.8322	0.937	0.91339	0.99134	0.98278
540	0.73688	0.72022	0.85722	0.82901	0.93528	0.91153	0.99114	0.98238
560	0.73175	0.71663	0.85394	0.82593	0.93358	0.90961	0.99095	0.98196
580	0.72645	0.71309	0.85073	0.82292	0.93193	0.90778	0.99074	0.98153
600	0.72138	0.709	0.84749	0.81999	0.93028	0.90595	0.99054	0.98111
620	0.71643	0.70499	0.84431	0.81707	0.92868	0.9042	0.99034	0.98072
640	0.71178	0.70127	0.84121	0.81421	0.92709	0.90247	0.99013	0.98032
660	0.70713	0.69794	0.83817	0.81144	0.92552	0.90079	0.98993	0.97992
680	0.70262	0.69417	0.83517	0.80856	0.924	0.89911	0.98973	0.97952
700	0.69816	0.6907	0.83224	0.8057	0.92247	0.89741	0.98954	0.97914
720	0.69372	0.68685	0.82928	0.80291	0.92096	0.89574	0.98934	0.97874
740	0.68944	0.68372	0.82632	0.80017	0.91947	0.89409	0.98914	0.97835

760	0.68513	0.68032	0.82342	0.79748	0.91794	0.8924	0.98894	0.97799
780	0.6809	0.677	0.82054	0.79488	0.91643	0.89077	0.98874	0.97763
800	0.67665	0.67349	0.81775	0.7923	0.91497	0.88917	0.98854	0.97726
820	0.67253	0.67021	0.81495	0.78982	0.91351	0.88756	0.98834	0.97691
840	0.66839	0.66723	0.81219	0.78728	0.91209	0.88599	0.98814	0.97656
860	0.66435	0.66399	0.80946	0.78476	0.91064	0.88444	0.98794	0.97622
880	0.66017	0.6612	0.80678	0.78245	0.90924	0.88291	0.98775	0.97587
900	0.65631	0.65807	0.80423	0.77999	0.90781	0.88133	0.98755	0.97552
920	0.6522	0.65496	0.80166	0.7776	0.9064	0.8798	0.98736	0.97518
940	0.64816	0.65177	0.7991	0.77511	0.905	0.87821	0.98718	0.97488
960	0.64434	0.64886	0.7966	0.77266	0.90366	0.8767	0.98699	0.97457
980	0.64059	0.64575	0.79415	0.77024	0.90229	0.87524	0.98681	0.97426
1000	0.63679	0.64316	0.79173	0.76792	0.90094	0.87377	0.98663	0.97395
1020	0.63301	0.64008	0.78924	0.76554	0.89963	0.87232	0.98646	0.97365
1040	0.62912	0.63751	0.7868	0.76309	0.89834	0.87089	0.98629	0.97335
1060	0.62564	0.63484	0.78434	0.76069	0.89707	0.86949	0.98612	0.97306
1080	0.62222	0.63242	0.78192	0.75844	0.89581	0.86808	0.98596	0.97276
1100	0.61848	0.62975	0.77955	0.7562	0.89455	0.86668	0.98579	0.97248
1120	0.6149	0.62736	0.7772	0.75392	0.8933	0.86528	0.98562	0.97221
1140	0.61139	0.62503	0.77483	0.75165	0.89207	0.86385	0.98544	0.97193
1160	0.60794	0.62287	0.77248	0.74935	0.89086	0.86241	0.98527	0.97164
1180	0.60459	0.62083	0.7701	0.74705	0.88967	0.86094	0.9851	0.97134
1200	0.60115	0.61834	0.76779	0.74484	0.8885	0.85953	0.98493	0.97104
1220	0.59774	0.6162	0.76548	0.74268	0.88732	0.85812	0.98476	0.97075
1240	0.59451	0.6139	0.76316	0.7405	0.88613	0.85671	0.98459	0.97044
1260	0.59135	0.6114	0.76086	0.73837	0.88494	0.85534	0.98441	0.97015
1280	0.58827	0.6088	0.75858	0.73617	0.88374	0.85395	0.98423	0.96986
1300	0.58519	0.60639	0.7563	0.73398	0.88256	0.85266	0.98406	0.96958
1320	0.58194	0.60401	0.75399	0.73184	0.88141	0.85136	0.98389	0.9693
1340	0.57876	0.60144	0.75165	0.72977	0.88025	0.85	0.98372	0.96899
1360	0.57561	0.59891	0.74935	0.72752	0.87912	0.84871	0.98355	0.9687
1380	0.57288	0.59634	0.74703	0.72537	0.87798	0.84737	0.98338	0.96839
1400	0.56984	0.59389	0.74474	0.72322	0.87684	0.84604	0.98321	0.96809
1420	0.56737	0.59177	0.74255	0.72122	0.8757	0.84479	0.98304	0.96782
1440	0.56473	0.58917	0.74039	0.71925	0.87458	0.84348	0.98288	0.96752
1460	0.56196	0.5869	0.73816	0.71732	0.87346	0.84228	0.98271	0.96724
1480	0.55913	0.58463	0.73601	0.71534	0.87236	0.841	0.98253	0.96698
1500	0.55623	0.58222	0.73382	0.71341	0.87125	0.83974	0.98236	0.96675
1520	0.55353	0.57971	0.73165	0.71156	0.87016	0.8384	0.98219	0.96651
1540	0.55098	0.57765	0.72947	0.70969	0.86908	0.8371	0.98201	0.96628
1560	0.54815	0.57534	0.72734	0.70786	0.86799	0.83577	0.98184	0.96604
1580	0.54551	0.57316	0.72511	0.70604	0.8669	0.83445	0.98166	0.96582
1600	0.54304	0.57083	0.72297	0.70428	0.86579	0.83319	0.98148	0.96561

1620	0.54065	0.56884	0.72083	0.70256	0.86469	0.83193	0.98131	0.96539
1640	0.53807	0.5672	0.71877	0.70093	0.86361	0.83062	0.98113	0.96516
1660	0.5355	0.56551	0.71678	0.69925	0.8625	0.82932	0.98095	0.96493
1680	0.53305	0.56352	0.71483	0.69748	0.86137	0.82802	0.98076	0.96466
1700	0.53061	0.56131	0.71289	0.69569	0.86025	0.82673	0.98059	0.96441
1720	0.52822	0.55928	0.71101	0.69393	0.85915	0.82546	0.98041	0.96415
1740	0.52577	0.55708	0.70913	0.69212	0.85806	0.82425	0.98023	0.96391
1760	0.52378	0.55538	0.70717	0.69039	0.85696	0.82306	0.98005	0.96367
1780	0.52172	0.55344	0.70519	0.6886	0.85584	0.82183	0.97987	0.96343
1800	0.51974	0.55134	0.70322	0.68683	0.85476	0.82061	0.9797	0.96317
1820	0.51751	0.54927	0.70126	0.68509	0.85368	0.81941	0.97952	0.96291
1840	0.51555	0.5478	0.6993	0.68338	0.85262	0.81821	0.97934	0.96267
1860	0.51364	0.54614	0.69735	0.68165	0.85152	0.81693	0.97916	0.96243
1880	0.51165	0.54442	0.69546	0.67992	0.85047	0.81569	0.97899	0.96217
1900	0.50958	0.54302	0.69353	0.67811	0.8494	0.81445	0.97882	0.9619
1920	0.50747	0.54115	0.69159	0.67632	0.84831	0.81322	0.97866	0.96163
1940	0.50556	0.53923	0.6897	0.67463	0.84725	0.81197	0.9785	0.96137
1960	0.50347	0.5371	0.68784	0.67297	0.8462	0.81076	0.97835	0.9611
1980	0.50125	0.53513	0.68595	0.67139	0.84516	0.80951	0.97819	0.96082
2000	0.49934	0.53333	0.68413	0.66977	0.84413	0.80829	0.97803	0.96055
2020	0.4973	0.53169	0.68231	0.66815	0.84308	0.8071	0.97787	0.96028
2040	0.49552	0.53011	0.68051	0.66659	0.84207	0.806	0.97772	0.96002
2060	0.49373	0.52864	0.67878	0.665	0.84103	0.80484	0.97757	0.95976
2080	0.49187	0.52707	0.67701	0.66338	0.84	0.80368	0.97742	0.95949
2100	0.49009	0.52554	0.67528	0.66177	0.83895	0.80258	0.97726	0.95923
2120	0.48807	0.52399	0.67353	0.66019	0.83791	0.80142	0.9771	0.95895
2140	0.48623	0.52262	0.67185	0.65861	0.83684	0.80031	0.97696	0.95867
2160	0.48396	0.52088	0.67013	0.65705	0.83578	0.79925	0.97681	0.95839
2180	0.48181	0.51888	0.66837	0.65543	0.83472	0.79821	0.97667	0.95812
2200	0.47983	0.51771	0.66663	0.65385	0.83363	0.79715	0.97652	0.95787
2220	0.47781	0.51605	0.66491	0.6523	0.83259	0.79612	0.97639	0.95758
2240	0.47595	0.51471	0.66319	0.65068	0.83154	0.79506	0.97624	0.95731
2260	0.47397	0.51315	0.66142	0.64901	0.83052	0.79407	0.97609	0.95704
2280	0.47223	0.51165	0.65967	0.64734	0.82948	0.79302	0.97594	0.95676
2300	0.47073	0.51049	0.65794	0.64579	0.82845	0.792	0.97578	0.95649
2320	0.46925	0.50941	0.65624	0.64433	0.82742	0.79088	0.97563	0.95621
2340	0.46747	0.50785	0.65451	0.64287	0.82639	0.78984	0.97547	0.95593
2360	0.46582	0.50582	0.65282	0.64141	0.82537	0.78886	0.97532	0.95565
2380	0.46422	0.50439	0.65115	0.63989	0.82435	0.78787	0.97518	0.95538
2400	0.46256	0.50267	0.64947	0.63833	0.82332	0.7869	0.97503	0.95509
2420	0.46128	0.50138	0.64776	0.63689	0.82232	0.78591	0.9749	0.95478
2440	0.45988	0.50004	0.64618	0.63541	0.82131	0.78497	0.97477	0.95448
2460	0.45845	0.49875	0.64454	0.63399	0.82029	0.78403	0.97464	0.95418

2480	0.45687	0.49713	0.64297	0.63255	0.81929	0.78313	0.97451	0.95389
2500	0.45525	0.49608	0.64138	0.63119	0.81828	0.78222	0.97438	0.95359
2520	0.45375	0.4944	0.63979	0.62985	0.81728	0.78131	0.97424	0.95332
2540	0.45221	0.49343	0.63817	0.62849	0.81628	0.78048	0.9741	0.95305
2560	0.45084	0.49166	0.63659	0.62709	0.81529	0.77963	0.97397	0.95278
2580	0.44928	0.49022	0.63506	0.62566	0.8143	0.7788	0.97383	0.9525
2600	0.44805	0.48893	0.63358	0.62422	0.81329	0.77803	0.97369	0.95222
2620	0.44668	0.48779	0.63204	0.62278	0.8123	0.77719	0.97354	0.95195
2640	0.4453	0.48649	0.63052	0.62146	0.81129	0.77625	0.9734	0.95169
2660	0.44395	0.48495	0.62894	0.61999	0.81029	0.77532	0.97326	0.95145
2680	0.44236	0.4835	0.62738	0.6185	0.80928	0.77445	0.97313	0.95119
2700	0.44077	0.48213	0.62578	0.61702	0.80828	0.77363	0.97299	0.95096
2720	0.43914	0.48051	0.62425	0.61555	0.8073	0.77277	0.97286	0.95073
2740	0.43763	0.47935	0.62283	0.61403	0.80632	0.77182	0.97273	0.95048
2760	0.43601	0.47735	0.62133	0.61257	0.80534	0.77093	0.97258	0.95022
2780	0.43437	0.47611	0.61977	0.61122	0.80439	0.77003	0.97245	0.94998
2800	0.43278	0.47415	0.61819	0.60985	0.80342	0.76913	0.97231	0.94975
2820	0.43126	0.47275	0.6167	0.60856	0.80244	0.76824	0.97217	0.94952
2840	0.42977	0.47144	0.61522	0.60723	0.80145	0.76744	0.97203	0.94931
2860	0.42833	0.46985	0.61372	0.60597	0.80048	0.76664	0.97189	0.94908
2880	0.42684	0.46821	0.61227	0.60466	0.79951	0.76588	0.97175	0.94884
2900	0.42538	0.46688	0.61083	0.60332	0.79858	0.76505	0.97162	0.94859
2920	0.42358	0.46574	0.60932	0.60201	0.79765	0.76421	0.97148	0.94835
2940	0.42207	0.46432	0.60787	0.60063	0.79673	0.76338	0.97134	0.94811
2960	0.42084	0.46265	0.6064	0.59935	0.79581	0.76258	0.9712	0.94788
2980	0.41941	0.46143	0.6049	0.59806	0.79489	0.76181	0.97106	0.94764
3000	0.41817	0.46031	0.60339	0.59691	0.79397	0.76107	0.97092	0.9474
3020	0.41689	0.45918	0.60198	0.59576	0.79307	0.76028	0.97078	0.94716
3040	0.41555	0.45829	0.60061	0.59457	0.79216	0.75948	0.97065	0.94693
3060	0.41449	0.45693	0.5992	0.59333	0.79126	0.75866	0.97051	0.9467
3080	0.41333	0.4558	0.59787	0.59203	0.79038	0.75787	0.97037	0.94647
3100	0.41186	0.45434	0.59653	0.59071	0.78948	0.75696	0.97023	0.94623
3120	0.41073	0.4529	0.59508	0.58941	0.78856	0.75604	0.97008	0.94599
3140	0.40947	0.45191	0.59365	0.58814	0.78764	0.75519	0.96995	0.94578
3160	0.40825	0.45072	0.59217	0.58687	0.78672	0.75428	0.96981	0.94556
3180	0.40705	0.44885	0.59076	0.58564	0.78578	0.75343	0.96967	0.94534
3200	0.40586	0.44711	0.58945	0.58434	0.78486	0.75253	0.96953	0.94511
3220	0.405	0.44547	0.58801	0.58311	0.78396	0.75167	0.9694	0.94489
3240	0.40376	0.44398	0.58671	0.5819	0.78307	0.75073	0.96926	0.94466
3260	0.40253	0.44284	0.58541	0.58073	0.78213	0.74978	0.96912	0.94442
3280	0.40137	0.44148	0.58412	0.57962	0.78124	0.74881	0.96898	0.94418
3300	0.4001	0.4401	0.58278	0.57848	0.78033	0.7478	0.96884	0.94394
3320	0.39909	0.43881	0.58139	0.5773	0.77945	0.74676	0.96869	0.94373

3340	0.39754	0.43775	0.58005	0.57606	0.77855	0.74576	0.96855	0.9435
3360	0.39646	0.43666	0.57868	0.57492	0.77764	0.74481	0.9684	0.94329
3380	0.39543	0.43611	0.57737	0.57379	0.77673	0.74401	0.96826	0.94309
3400	0.39447	0.43597	0.57598	0.57275	0.77579	0.74322	0.96811	0.94286
3420	0.3933	0.43535	0.57466	0.57164	0.77488	0.7424	0.96797	0.94263
3440	0.392	0.43483	0.57333	0.57054	0.77398	0.74156	0.96782	0.94239
3460	0.39058	0.43396	0.57203	0.56947	0.77307	0.74075	0.96767	0.9422
3480	0.38956	0.4326	0.57078	0.56834	0.77216	0.73993	0.96752	0.94198
3500	0.38805	0.4319	0.56947	0.56731	0.77127	0.73897	0.96737	0.94176
3520	0.38716	0.43074	0.56817	0.56631	0.77038	0.73808	0.96722	0.94151
3540	0.38601	0.42973	0.56688	0.56524	0.76947	0.73714	0.96707	0.94126
3560	0.38483	0.4289	0.5655	0.56416	0.76857	0.73627	0.96692	0.941
3580	0.38368	0.42811	0.5642	0.5631	0.76765	0.73534	0.96677	0.94074
3600	0.38244	0.42741	0.56291	0.56208	0.76672	0.7344	0.96663	0.94046
3620	0.38114	0.42671	0.56162	0.56102	0.76583	0.73346	0.96648	0.9402
3640	0.38003	0.4255	0.56032	0.5599	0.76494	0.73253	0.96633	0.93996
3660	0.37913	0.42447	0.55906	0.55871	0.76406	0.73165	0.96619	0.93972
3680	0.3782	0.42372	0.55782	0.55761	0.7632	0.73091	0.96605	0.93943
3700	0.37722	0.42305	0.55663	0.55647	0.76234	0.73014	0.9659	0.93917
3720	0.37639	0.42169	0.55542	0.55534	0.76149	0.7293	0.96576	0.93885
3740	0.37542	0.42071	0.55427	0.55428	0.76063	0.72854	0.96561	0.93857
3760	0.37464	0.4199	0.5531	0.55332	0.75976	0.72795	0.96547	0.9383
3780	0.37368	0.41949	0.55198	0.5523	0.75893	0.72724	0.96532	0.93806
3800	0.37268	0.41852	0.5509	0.55128	0.75807	0.72648	0.96517	0.93779
3820	0.37157	0.41857	0.54985	0.55032	0.75723	0.72564	0.96503	0.93754
3840	0.37041	0.41757	0.54879	0.54931	0.75637	0.72481	0.9649	0.93725
3860	0.36955	0.41649	0.54772	0.54838	0.75552	0.72383	0.96476	0.93698
3880	0.36824	0.4156	0.54668	0.54739	0.75468	0.72292	0.96463	0.93669
3900	0.36724	0.41508	0.54565	0.54638	0.75385	0.72192	0.9645	0.9364
3920	0.36647	0.41439	0.54456	0.54535	0.75303	0.72098	0.96437	0.93609
3940	0.36551	0.41464	0.54345	0.54434	0.75219	0.7201	0.96423	0.93578
3960	0.36454	0.41451	0.54236	0.54339	0.75136	0.7192	0.96408	0.93545
3980	0.36361	0.41418	0.54135	0.54237	0.75055	0.71822	0.96394	0.93509
4000	0.36265	0.4144	0.54038	0.5414	0.74973	0.71714	0.9638	0.93478
4020	0.36187	0.41311	0.53938	0.5404	0.7489	0.71613	0.96365	0.93452
4040	0.36122	0.412	0.53837	0.53941	0.74808	0.71524	0.96351	0.93429
4060	0.36025	0.41106	0.53738	0.53836	0.74728	0.71442	0.96337	0.93406
4080	0.35924	0.41001	0.53644	0.53736	0.74648	0.71368	0.96322	0.93383
4100	0.35852	0.4085	0.53544	0.53625	0.7457	0.71299	0.96308	0.93358
4120	0.35788	0.40707	0.5345	0.53519	0.74493	0.71231	0.96293	0.93335
4140	0.35725	0.40597	0.53355	0.53409	0.74418	0.71171	0.96279	0.93314
4160	0.35633	0.40476	0.5326	0.53301	0.74343	0.71119	0.96264	0.93292
4180	0.35577	0.40312	0.53176	0.53197	0.74267	0.71062	0.96249	0.93271

4200	0.35488	0.40178	0.53078	0.53094	0.74191	0.70985	0.96233	0.93252
4220	0.35449	0.40053	0.52974	0.52995	0.74113	0.70904	0.96218	0.93235
4240	0.35403	0.39874	0.52885	0.52901	0.74035	0.70817	0.96202	0.93217
4260	0.35342	0.3976	0.52792	0.52815	0.73956	0.70739	0.96188	0.93198
4280	0.35285	0.39659	0.52702	0.52725	0.73875	0.70658	0.96173	0.93172
4300	0.35213	0.3962	0.52615	0.52634	0.73798	0.70601	0.96158	0.93151
4320	0.35135	0.39572	0.52525	0.52543	0.73724	0.70544	0.96143	0.93126
4340	0.35044	0.39532	0.52439	0.52448	0.7365	0.7047	0.96128	0.93102
4360	0.34937	0.39471	0.52347	0.52351	0.73575	0.70385	0.96114	0.93081
4380	0.34844	0.39372	0.52263	0.52248	0.735	0.70319	0.96099	0.93058
4400	0.34757	0.39297	0.52174	0.52131	0.73424	0.70231	0.96085	0.93034
4420	0.3468	0.39227	0.52075	0.52028	0.7335	0.70129	0.96071	0.93011
4440	0.34627	0.39109	0.5199	0.51936	0.73275	0.70044	0.96057	0.92992
4460	0.34542	0.39039	0.5191	0.51841	0.73201	0.69957	0.96042	0.92966
4480	0.34477	0.3896	0.51823	0.51737	0.73129	0.69876	0.96028	0.92939
4500	0.34408	0.38874	0.51727	0.51631	0.73054	0.69816	0.96014	0.92915
4520	0.34336	0.3884	0.51626	0.51524	0.72981	0.69724	0.96	0.92897
4540	0.34282	0.38687	0.51524	0.51422	0.72909	0.69599	0.95987	0.92878
4560	0.34208	0.38637	0.51425	0.51332	0.72836	0.69479	0.95974	0.92853
4580	0.34126	0.38537	0.51329	0.51236	0.72761	0.69369	0.95961	0.92825
4600	0.34056	0.38336	0.51239	0.51136	0.72685	0.6927	0.95947	0.92789
4620	0.33979	0.38188	0.51141	0.51048	0.72611	0.69162	0.95933	0.92743
4640	0.33916	0.38126	0.51053	0.50961	0.72536	0.69073	0.95919	0.92711
4660	0.33837	0.38031	0.50967	0.50862	0.72459	0.68999	0.95905	0.92682
4680	0.33784	0.37881	0.50871	0.5077	0.72384	0.68938	0.95891	0.9265
4700	0.33697	0.37811	0.50778	0.50685	0.72309	0.68868	0.95877	0.92613
4720	0.33622	0.37805	0.50684	0.50584	0.72235	0.68813	0.95863	0.92572
4740	0.33602	0.37738	0.50597	0.50485	0.72161	0.68782	0.95848	0.92533
4760	0.33516	0.37706	0.50502	0.50387	0.72085	0.68756	0.95832	0.92496
4780	0.33483	0.37639	0.50416	0.50295	0.72009	0.68726	0.95819	0.92473
4800	0.33428	0.37494	0.50345	0.50201	0.71939	0.68679	0.95805	0.92446
4820	0.33386	0.37526	0.50275	0.50115	0.71866	0.6867	0.95791	0.92414
4840	0.33328	0.37484	0.50196	0.50027	0.71796	0.68633	0.95778	0.92387
4860	0.33313	0.37523	0.50118	0.49934	0.71724	0.68528	0.95764	0.92367
4880	0.33266	0.37451	0.50039	0.49853	0.71652	0.68377	0.95751	0.92343
4900	0.33237	0.3772	0.49965	0.49769	0.71582	0.68214	0.95737	0.9231
4920	0.33167	0.37829	0.49887	0.4969	0.71508	0.68079	0.95723	0.92286
4940	0.33074	0.37842	0.49804	0.496	0.71436	0.6805	0.95708	0.92252
4960	0.33001	0.3774	0.49707	0.49524	0.71366	0.67925	0.95695	0.92194
4980	0.32891	0.38085	0.4963	0.49431	0.71297	0.67732	0.95682	0.92136
5000	0.32797	0.38145	0.49548	0.49342	0.71229	0.67616	0.95668	0.92078

7. Figure 6

Probability distribution of adsorbed monomers in each adsorbed chain $P(M_{\text{ads}})$		
M_{ads}	ring	linear
1	0.01623	0.03341
2	0.04469	0.05915
3	0.05198	0.06471
4	0.05394	0.06655
5	0.05579	0.06742
6	0.05762	0.06725
7	0.05795	0.06616
8	0.05919	0.06402
9	0.05935	0.06179
10	0.05943	0.0587
11	0.05844	0.05511
12	0.05713	0.05127
13	0.05564	0.04668
14	0.05088	0.04205
15	0.04752	0.0376
16	0.04281	0.0329
17	0.03805	0.02802
18	0.03231	0.0237
19	0.02695	0.01952
20	0.02149	0.01573
21	0.01638	0.01219
22	0.01269	0.00884
23	0.0089	0.00642
24	0.00595	0.00448
25	0.00389	0.00273
26	0.00244	0.00176
27	0.00127	9.53333E-4
28	6.48074E-4	4.9881E-4
29	2.55302E-4	2.54067E-4
30	1.3747E-4	8.62425E-5
31	4.58237E-5	3.03014E-5
32	6.54681E-6	4.66176E-6

8. Figure 7(a)

Layer-resolved $\langle \delta r^2 \rangle$ for non-adsorbed chains at $\varepsilon_{\text{ps}} = 5$			
ring		linear	
z_c	$\langle \delta r^2 \rangle$	z_c	$\langle \delta r^2 \rangle$
3		3	0.05029
4	0.0556	4	0.05223
5	0.05918	5	0.05517

6	0.06279	6	0.05737
7	0.06526	7	0.05934
8	0.06717	8	0.06071
9	0.06805	9	0.06161
10	0.06865	10	0.06221
11	0.06893	11	0.06264
12	0.06974	12	0.06276
13	0.06982	13	0.06305
14	0.07015	14	0.06341
15	0.07032	15	0.06339
16	0.07041	16	0.06352
17	0.07065	17	0.06357
18	0.07002	18	0.06338
19	0.07065	19	0.0638
20	0.07059	20	0.06398
21	0.07052	21	0.06328
22	0.07036	22	0.06377
23	0.07043	23	0.06372
24	0.07048	24	0.0637
25	0.07066	25	0.06369
26	0.07043	26	0.06348
27	0.07051	27	0.06334
28	0.07055	28	0.06376
29	0.0705	29	0.06365
30	0.07049	30	0.06356
31	0.07034	31	0.06393

9. Figure 7(b)

z_c	$\langle \delta r^2 \rangle / \langle \delta r^2 \rangle_{\text{bulk}}$ at $\epsilon_{\text{ps}} = 3$		$\langle \delta r^2 \rangle / \langle \delta r^2 \rangle_{\text{bulk}}$ at $\epsilon_{\text{ps}} = 5$		$\langle \delta r^2 \rangle / \langle \delta r^2 \rangle_{\text{bulk}}$ at $\epsilon_{\text{ps}} = 10$	
	ring	linear	ring	linear	ring	linear
3	0.89288	0.90901		0.79092	0.46587	0.51834
4	0.8813	0.90648	0.78896	0.8214	0.57987	0.62592
5	0.90209	0.92143	0.83981	0.86763	0.70186	0.73315
6	0.94058	0.94317	0.891	0.90222	0.80688	0.82432
7	0.95174	0.95426	0.92604	0.9332	0.87536	0.87404
8	0.96983	0.96987	0.95314	0.95473	0.91146	0.91614
9	0.97739	0.97082	0.9657	0.96894	0.94105	0.93973
10	0.98413	0.98118	0.9742	0.97822	0.95579	0.95459
11	0.98976	0.98472	0.97812	0.98513	0.97383	0.96781
12	0.99005	0.98823	0.98957	0.98692	0.97502	0.97606
13	0.99164	0.98538	0.99077	0.99156	0.98292	0.98337
14	0.9901	0.99678	0.99543	0.99713	0.98789	0.9925
15	0.99027	0.99319	0.99788	0.99681	0.98645	0.98902

16	0.99335	0.99976	0.99913	0.99887	0.98888	0.99134
17	0.99275	0.99434	1.00253	0.99972	0.99421	1.00289
18	0.99725	1.00027	0.99363	0.99667	0.99307	1.00063
19	0.99819	0.99907	1.00257	1.00326	0.99919	1.00525
20	0.99492	0.99537	1.00163	1.00608	0.99489	1.00457
21	0.99718	0.99999	1.00077	0.99514	0.99878	1.00307
22	0.99777	0.99772	0.99837	1.0029	0.99939	1.00003
23	0.99497	1.0036	0.99944	1.00211	0.99594	0.99503
24	0.99464	0.99781	1.00009	1.00175	1.00036	1.00065
25	0.99845	0.99764	1.00267	1.00154	0.9951	0.99976
26	1.00119	1.00213	0.99944	0.99833	1.00084	0.99785
27	0.99989	1.00379	1.0005	0.99606	0.99848	1.00197
28	0.9953	0.99987	1.00114	1.00262	0.99866	0.99977
29	0.99976	0.99841	1.00044	1.00101	1.00084	1.00228
30	0.99988	1.00035	1.00023	0.9995	0.99736	0.9977
31	1.00509	0.9984	0.9982	1.00534	0.99784	0.99549

10. Figure 8(a)

Monomer densities of loops and non-adsorbed chains in the ring polymer film			
z	ρ_{loop}	z	$\rho_{\text{non-adsorbed}}$
1.35	0.18135	1.35	0.00132
1.45	0.2766	1.45	0.00275
1.55	0.57505	1.55	0.00811
1.65	1.17233	1.65	0.02969
1.75	1.51678	1.75	0.08157
1.85	1.1903	1.85	0.121
1.95	0.80799	1.95	0.11768
2.05	0.57462	2.05	0.09779
2.15	0.46338	2.15	0.08381
2.25	0.43548	2.25	0.08335
2.35	0.47268	2.35	0.09611
2.45	0.56569	2.45	0.12535
2.55	0.67307	2.55	0.17377
2.65	0.72585	2.65	0.23036
2.75	0.67562	2.75	0.26541
2.85	0.57948	2.85	0.27218
2.95	0.49227	2.95	0.2638
3.05	0.43695	3.05	0.26153
3.15	0.41197	3.15	0.26909
3.25	0.40463	3.25	0.28749
3.35	0.40931	3.35	0.32177
3.45	0.41569	3.45	0.36381
3.55	0.40701	3.55	0.40361

3.65	0.37788	3.65	0.43433
3.75	0.34512	3.75	0.44963
3.85	0.31067	3.85	0.45367
3.95	0.28264	3.95	0.4623
4.05	0.26142	4.05	0.47537
4.15	0.24586	4.15	0.49137
4.25	0.23181	4.25	0.51886
4.35	0.21741	4.35	0.54477
4.45	0.20341	4.45	0.57041
4.55	0.1862	4.55	0.59005
4.65	0.16692	4.65	0.60542
4.75	0.15005	4.75	0.61479
4.85	0.13484	4.85	0.62174
4.95	0.12173	4.95	0.63257
5.05	0.11036	5.05	0.64202
5.15	0.10007	5.15	0.65698
5.25	0.09018	5.25	0.67023
5.35	0.08053	5.35	0.6826
5.45	0.07158	5.45	0.69354
5.55	0.06334	5.55	0.70051
5.65	0.05554	5.65	0.71055
5.75	0.04827	5.75	0.71494
5.85	0.04145	5.85	0.71368
5.95	0.03688	5.95	0.72073
6.05	0.03169	6.05	0.72743
6.15	0.0278	6.15	0.73325
6.25	0.02398	6.25	0.73617
6.35	0.02019	6.35	0.74325
6.45	0.01743	6.45	0.7458
6.55	0.01479	6.55	0.74904
6.65	0.01241	6.65	0.74794
6.75	0.01049	6.75	0.7506
6.85	0.00865	6.85	0.74967
6.95	0.00719	6.95	0.75536
7.05	0.00616	7.05	0.75508
7.15	0.00508	7.15	0.75541
7.25	0.00412	7.25	0.75638
7.35	0.00335	7.35	0.75619
7.45	0.00264	7.45	0.75871
7.55	0.00216	7.55	0.75967
7.65	0.00183	7.65	0.75895
7.75	0.0014	7.75	0.75723
7.85	0.00113	7.85	0.75942

7.95	8.738E-4	7.95	0.76202
8.05	7.674E-4	8.05	0.75942
8.15	5.167E-4	8.15	0.76029
8.25	4.569E-4	8.25	0.76109
8.35	3.238E-4	8.35	0.76036
8.45	2.75E-4	8.45	0.76178
8.55	1.575E-4	8.55	0.76141
		8.65	0.76009
		8.75	0.76106
		8.85	0.76189
		8.95	0.75903
		9.05	0.76162
		9.15	0.76223
		9.25	0.7597
		9.35	0.76277
		9.45	0.76112
		9.55	0.76176
		9.65	0.76094
		9.75	0.7625
		9.85	0.75921
		9.95	0.75969
		10.05	0.76239
		10.15	0.76282
		10.25	0.75938
		10.35	0.76013
		10.45	0.76
		10.55	0.76092
		10.65	0.76237
		10.75	0.7605
		10.85	0.76177
		10.95	0.76212
		11.05	0.75966
		11.15	0.76214
		11.25	0.76056
		11.35	0.76076
		11.45	0.76005
		11.55	0.75996
		11.65	0.76305
		11.75	0.76121
		11.85	0.76255
		11.95	0.76263
		12.05	0.76078
		12.15	0.75976

		12.25	0.75973
		12.35	0.75915
		12.45	0.7611
		12.55	0.76147
		12.65	0.7619
		12.75	0.76063
		12.85	0.76175
		12.95	0.76211
		13.05	0.76026
		13.15	0.76032
		13.25	0.75943
		13.35	0.7622
		13.45	0.7589
		13.55	0.76036
		13.65	0.76172
		13.75	0.76169
		13.85	0.75953
		13.95	0.7595

11. Figure 8(b)

Monomer densities of loops, tails, and non-adsorbed chains in the linear polymer film					
z	ρ_{loop}	z	ρ_{tail}	z	$\rho_{\text{non-adsorbed}}$
1.35	0.12755	1.35	0.05245	1.35	0.00172
1.45	0.18702	1.45	0.08625	1.45	0.00332
1.55	0.36326	1.55	0.20063	1.55	0.0095
1.65	0.64227	1.65	0.50084	1.65	0.03304
1.75	0.698	1.75	0.77675	1.75	0.08796
1.85	0.4688	1.85	0.70825	1.85	0.12956
1.95	0.28314	1.95	0.52367	1.95	0.12219
2.05	0.18989	2.05	0.38948	2.05	0.10117
2.15	0.14713	2.15	0.31987	2.15	0.08563
2.25	0.13317	2.25	0.29995	2.25	0.08436
2.35	0.13949	2.35	0.32989	2.35	0.09469
2.45	0.15606	2.45	0.39749	2.45	0.1214
2.55	0.17076	2.55	0.49046	2.55	0.16734
2.65	0.16404	2.65	0.55174	2.65	0.21684
2.75	0.13931	2.75	0.54138	2.75	0.24887
2.85	0.10868	2.85	0.48226	2.85	0.25136
2.95	0.08715	2.95	0.42383	2.95	0.24389
3.05	0.07168	3.05	0.3847	3.05	0.23923
3.15	0.06403	3.15	0.36914	3.15	0.24265
3.25	0.05917	3.25	0.36863	3.25	0.2584
3.35	0.05639	3.35	0.38043	3.35	0.28385

3.45	0.05306	3.45	0.39627	3.45	0.31727
3.55	0.04794	3.55	0.39918	3.55	0.35021
3.65	0.0417	3.65	0.38726	3.65	0.37423
3.75	0.03436	3.75	0.3645	3.75	0.38478
3.85	0.02922	3.85	0.34122	3.85	0.38941
3.95	0.02556	3.95	0.32095	3.95	0.394
4.05	0.02155	4.05	0.30535	4.05	0.40258
4.15	0.01872	4.15	0.29475	4.15	0.41617
4.25	0.01675	4.25	0.28853	4.25	0.43528
4.35	0.01484	4.35	0.27998	4.35	0.4577
4.45	0.01268	4.45	0.27389	4.45	0.47745
4.55	0.01086	4.55	0.25938	4.55	0.49552
4.65	0.00935	4.65	0.24625	4.65	0.50594
4.75	0.0077	4.75	0.23518	4.75	0.51395
4.85	0.00652	4.85	0.21926	4.85	0.52297
4.95	0.00553	4.95	0.20873	4.95	0.5326
5.05	0.0048	5.05	0.19746	5.05	0.5426
5.15	0.00402	5.15	0.18895	5.15	0.55617
5.25	0.00342	5.25	0.17855	5.25	0.57063
5.35	0.00281	5.35	0.17081	5.35	0.58185
5.45	0.00235	5.45	0.16179	5.45	0.59057
5.55	0.00197	5.55	0.15345	5.55	0.60064
5.65	0.00159	5.65	0.14253	5.65	0.60875
5.75	0.00138	5.75	0.13356	5.75	0.61892
5.85	0.00116	5.85	0.12705	5.85	0.62263
5.95	8.051E-4	5.95	0.11864	5.95	0.63043
6.05	7.784E-4	6.05	0.11188	6.05	0.63786
6.15	5.567E-4	6.15	0.10514	6.15	0.64734
6.25	4.524E-4	6.25	0.09904	6.25	0.65128
6.35	3.748E-4	6.35	0.09284	6.35	0.65812
6.45	3.327E-4	6.45	0.08768	6.45	0.66648
6.55	2.44E-4	6.55	0.08232	6.55	0.67122
6.65	1.663E-4	6.65	0.07699	6.65	0.677
6.75	1.308E-4	6.75	0.07114	6.75	0.67843
6.85	1.02E-4	6.85	0.06708	6.85	0.68483
		6.95	0.06221	6.95	0.68967
		7.05	0.05893	7.05	0.69342
		7.15	0.0543	7.15	0.6999
		7.25	0.05084	7.25	0.70284
		7.35	0.04762	7.35	0.7036
		7.45	0.04396	7.45	0.70894
		7.55	0.04068	7.55	0.71223
		7.65	0.03802	7.65	0.71339

		7.75	0.03608	7.75	0.71567
		7.85	0.03354	7.85	0.7207
		7.95	0.03096	7.95	0.72238
		8.05	0.02881	8.05	0.72462
		8.15	0.02686	8.15	0.72601
		8.25	0.02466	8.25	0.72684
		8.35	0.02301	8.35	0.7287
		8.45	0.02143	8.45	0.73252
		8.55	0.01978	8.55	0.73375
		8.65	0.01817	8.65	0.73348
		8.75	0.0169	8.75	0.73717
		8.85	0.01592	8.85	0.73796
		8.95	0.01419	8.95	0.74013
		9.05	0.01303	9.05	0.74056
		9.15	0.01231	9.15	0.73959
		9.25	0.01127	9.25	0.7413
		9.35	0.01054	9.35	0.74241
		9.45	0.00974	9.45	0.74211
		9.55	0.00886	9.55	0.74383
		9.65	0.00792	9.65	0.74373
		9.75	0.00727	9.75	0.74637
		9.85	0.00675	9.85	0.74659
		9.95	0.00613	9.95	0.74771
		10.05	0.00567	10.05	0.74591
		10.15	0.00532	10.15	0.7485
		10.25	0.00482	10.25	0.74877
		10.35	0.00424	10.35	0.7468
		10.45	0.00383	10.45	0.74943
		10.55	0.00351	10.55	0.74916
		10.65	0.00324	10.65	0.74992
		10.75	0.00292	10.75	0.75028
		10.85	0.00261	10.85	0.7507
		10.95	0.0024	10.95	0.74902
		11.05	0.00225	11.05	0.75
		11.15	0.00198	11.15	0.74824
		11.25	0.00178	11.25	0.75401
		11.35	0.00157	11.35	0.75052
		11.45	0.00141	11.45	0.75166
		11.55	0.00126	11.55	0.75073
		11.65	0.00122	11.65	0.75249
		11.75	0.00118	11.75	0.74985
		11.85	9.492E-4	11.85	0.75272
		11.95	8.383E-4	11.95	0.7521

		12.05	7.873E-4	12.05	0.75086
		12.15	7.452E-4	12.15	0.75331
		12.25	6.476E-4	12.25	0.75257
		12.35	5.411E-4	12.35	0.75061
		12.45	4.923E-4	12.45	0.75148
		12.55	4.68E-4	12.55	0.75124
		12.65	4.169E-4	12.65	0.75198
		12.75	3.748E-4	12.75	0.75121
		12.85	2.994E-4	12.85	0.75126
		12.95	2.839E-4	12.95	0.75285
		13.05	2.528E-4	13.05	0.7542
		13.15	2.063E-4	13.15	0.75376
		13.25	1.885E-4	13.25	0.75178
		13.35	1.907E-4	13.35	0.75362
		13.45	1.464E-4	13.45	0.74974
		13.55	1.486E-4	13.55	0.75263
		13.65	1.175E-4	13.65	0.75337
		13.75	1.53E-4	13.75	0.75215
				13.85	0.7505
				13.95	0.75256

12. Figure 9

Effect of ε_{ps} on (a) the interpenetration I and (b) the average number of contact pairs $\langle N_{pair} \rangle$					
I			$\langle N_{pair} \rangle$		
ε_{ps}	ring	linear	ε_{ps}	ring	Linear
2	0.43561	0.61097	2	35.78554	35.85314
3	0.43856	0.60819	3	36.00459	36.01417
4	0.44092	0.61356	4	36.31917	36.12198
5	0.44823	0.60948	5	36.54315	36.16955
6	0.4527	0.61436	6	36.77662	36.36835
8	0.46488	0.62819	8	37.17218	36.6558
10	0.4887	0.64412	10	37.6748	37.06305