## **Supporting information**

## Time-resolved polarized light imaging of sheared materials: application to polymer crystallization.

## Oleksandr O. Mykhaylyk

## Department of Chemistry, University of Sheffield, Sheffield, S3 7HF, UK

The folder of supporting information contains montages of polarized light video (\*.avi) and montages of video frames (\*.jpg) of shear-induced crystallization of polymer melt (polyethylene, HDPE) acquired at two different shear conditions (Table). The shear pulses have been performed at 398 K. The scale of the frames is 18 mm.

Table.										
	Files	Conditions of shear	Temperature conditions	Number of video frames and frame rate						
1	omega0667time7_398Kmontage.jpg	angular acceleration $\alpha = 0.333 \text{ rad/s}^2$ , maximum angular speed $\Omega_{\text{max}} = 0.667$ rad/s and time of shearing $t_{\text{s}} = 7$ s	T = 398 K for 60 s and then cooled down	600 frames, first 200 frames at 0.2 s per frame and the rest 400 frames at 1 s per frame						
2	omega0667time22_398Kmontage.jpg omega0667time22_398Ks.avi	$\alpha = 0.333$ rad/s <sup>2</sup> , $\Omega_{max} =$ 0.667 rad/s and $t_s = 22$ s	T = 398 K for 60 s and then cooled down	600 frames, 200 × 0.2 s and 400 × 1 s						



								63	63		6		6		1.	1	1	1
This jour	nal is (c) The Royal Society	of Chemistry 2010	rup002	run004	rup005	rup008	rup007	rum000	run000		Value 11	Yun012	Viii) 012	Tun 01 4	The Discourse of the State	win016	Fun012	V
ranooo	Pundo I	runoo2	Tunious	runou4	runoos	runoos	runoo/	Tunuoa	1	Hunwie -	Turiui-P	HUILUI-2	Turiur 3		Tetho 1-5	Tellu 1-8		1
	1				A Co									VE I				
run025	run026	run027	run028	run029	run030	run031	run032	run033	run034	run035	run036	run037	run038	run039	run040	run041	run042	
																		1
run058	run051	run052	run053	run054	run055	run056	run057	run058	run059	run060	run061	run062	run063	run064	run065	run066	run067-	
run075	run076	run077	run078	run079	run089	run081	run082	run083	run084	run085	run086	run087	run088	run089	run090	run091	run092	
																		1
run100	run101	run102	run103	run104	run105	run106	run107	run108	run109	run110	run111	run112	run113	run114	run115	run116	run117	
															(			
run125	run126	run127	run128	run129	run130	run131	run132	run133	run134	run135	run136	run137	run138	run139	run140	run141	run142	ŝ
0												(					(1)	
run150	run151	run152	run153	run154	run155	run156	run157	run158	run159	run160	run161	run162	run163	run164	run165	run166	run167	
	(	(					63	(	(			(	(				(	
run175	run176	run177	run178	run179	run180	run181	run182	run183	run184	run185	run186	run187	run188	run189	run190	run191	run192	
								600										
run200	run201	run202	run203	run204	run205	run206	run207	run208	run209	run210	run211	run212	run213	run214	run215	run216	run217	
run225	run226	run227	run228	run229	run230	run231	run232	run233	run234	run235	run236	run237	run238	run239	run240	run241	run242	
	Aun 250			AUT 254	400255	CUIT 23b	400250	Cunzoa	400259	Aun 260	tun 281	AUL 202	CUIT 26.3	cun 264	AUR 265	AULT ZBB	AUT 202	
run275	run276	run277	run278	run279	run280	run281	run282	run283	run284	run285	run286	run 28	run288	run289	run290	run291	run292	
run300	run301	run302	run303	run304	run305	run306	run307	run 308	run 309	run310	run311	run312	run313	run314	run315	run316	run317	
run325	run326	run327	run328	run329	run330	run331	run332	run333	run334	run335	run336	run337	run338	run339	run340	run341	run342	
run350	run351	run352	run353	run354	run355	run356	run357	run 358	run359	run360	run361	run362	run363	run364	run365	run366	run367	
run375	run376	run377	run378	run379	run380	run381	run382	run 383	run384	run385	run386	run387	run 388	run389	run 390	run391	run392	
run400	run401	run402	run403	run404	run405	run406	run407	run408	run409	run410	run411	run412	run413	run414	run415	run416	run417	
run425	run426	run427	run428	run429	run430	run431	run432	run433	run434	run435	run436	run437	run438	run439	run440	run441	run442	
run450	run451	run452	run453	run454	run455	run456	run457	run458	run459	run460	run461	run462	run463	run464	run465	run466	run467	
	()																	
run475	run476	run477	run478	run479	run480	run481	run482	run483	run484	run485	run486	run487	run488	run489	run490	run491	run492	
run500	run501	run502	run503	run504	run505	run506	run507	run508	run509	run510	run511	run512	run513	run514	run515	run516	run517	
run525	run526	run527	run528	run529	run530	run531	run532	run533	run534	run535	run536	run537	run538	run539	run540	run541	run542	
run550	run551	run552	run553	run554	run555	run556	run557	run558	run559	run560	run561	run562	run563	run564	run565	run566	run567	
run575	run578	run577	run578	run579	run580	run581	run582	run583	run584	run585	run586	run587	run588	run589	run590	run591	run592	

