

Appendix A

Table A1. Intensity of solar radiation during photodegradation of the dye (DB-199).

Pyranometer Report							
DATE-01-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	699	326	34.9	3.2	79	38
2	12:00	733	288	35.7	3.3	162	37
3	13:00	706	276	36	2.7	208	36
4	14:00	547	252	36.3	2.6	202	37
DATE-02-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	841	177	38.7	0	48	22
2	12:00	819	185	39.4	2	132	22
3	13:00	749	233	40.1	0.4	57	20
4	14:00	605	212	40.3	1.6	104	22
DATE-03-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	852	208	41.6	0.8	38	11
2	12:00	852	248	42.5	1.2	331	10
3	13:00	432	303	42.4	1.6	20	10
4	14:00	289	265	41.9	2.2	51	10
DATE-04-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	553	340	39.7	2	55	25
2	12:00	776	268	40.1	3.3	176	24
3	13:00	675	253	41	1	131	24
4	14:00	552	275	41.7	2.3	159	17
DATE-05-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	862	222	41.4	3	38	17
2	12:00	828	237	42.1	2.8	350	18
3	13:00	734	251	42.8	2.4	57	10
4	14:00	630	234	43.2	4.3	39	10

Table A2. Intensity of solar radiation during photodegradation of the dye (DB-199).

DATE-06-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	823	235	43.2	1.4	78	10
2	12:00	814	235	43.8	0.8	337	10
3	13:00	759	234	43.9	1.4	103	10
4	14:00	533	248	44.5	1.8	132	10
DATE-08-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	797	245	38.6	1.9	104	37
2	12:00	769	257	39.2	1.5	198	35
3	13:00	669	273	41.5	0.7	301	35
4	14:00	394	266	41.1	0.8	145	31
DATE-09-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	346	322	34.9	0.3	259	42
2	12:00	562	464	36.5	0.5	170	41
3	13:00	331	558	36.9	2.2	181	35
4	14:00	264	299	37	0.6	203	36
DATE-10-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	785	225	36.4	1.4	174	43
2	12:00	773	234	38.1	2.1	237	40
3	13:00	684	223	39.9	0.9	265	32
4	14:00	589	228	40.2	0.8	238	29
DATE-11-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	782	243	37	1.6	279	53
2	12:00	769	250	37.9	2	112	51
3	13:00	691	297	39.3	1.8	205	41
4	14:00	600	348	40.5	1.9	138	35

Table A3. Intensity of solar radiation during photodegradation of the dye (DB-199).

DATE-12-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	764	234	39.8	1.4	137	49
2	12:00	736	256	40.1	2.4	159	41
3	13:00	689	209	41	1.8	185	35
4	14:00	571	222	42.1	2	139	32
DATE-13-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	767	258	36.9	2.7	224	49
2	12:00	753	239	39	1.8	260	37
3	13:00	680	236	40.3	3.3	204	37
4	14:00	557	204	41.2	1.4	188	30
DATE-15-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	737	241	40.2	1.4	148	37
2	12:00	714	276	42.3	1.3	131	32
3	13:00	653	264	42.9	2.2	64	29
4	14:00	545	209	44	0.5	205	27
DATE-16-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	797	189	39.3	0.6	352	40
2	12:00	768	185	40.7	1.7	112	37
3	13:00	622	249	42.4	1.9	149	37
4	14:00	586	174	42.3	2.1	65	34
DATE-17-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	712	263	39.2	0.2	248	34
2	12:00	690	277	40.4	0.9	172	21
3	13:00	606	287	40.3	3.1	123	42
4	14:00	511	271	40.5	1.9	154	42

Table A4. Intensity of solar radiation during photodegradation of the dye (DB-199).

DATE-18-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	793	198	38.4	1.8	102	32
2	12:00	735	200	39.8	3	147	30
3	13:00	716	232	40.6	1.7	114	30
4	14:00	531	204	41.1	1.8	142	25
DATE-19-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	791	184	42.1	1.5	46	22
2	12:00	738	225	43.1	1.3	30	19
3	13:00	731	212	42.6	2.6	24	20
4	14:00	528	211	43.5	3.1	100	15
DATE-20-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	796	175	41.1	2.5	64	22
2	12:00	813	183	42.2	4.2	92	19
3	13:00	714	177	43.5	3	160	13
4	14:00	587	169	43.6	2.9	56	11
DATE-22-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	784	277	41.6	1.7	89	24
2	12:00	771	280	42.9	1.2	43	21
3	13:00	685	271	43.1	2.3	142	17
4	14:00	542	211	44.8	0.9	23	14
DATE-23-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	722	248	41.2	1.8	130	28
2	12:00	682	270	42.4	1.5	111	27
3	13:00	654	239	42.4	1.8	67	24
4	14:00	511	219	43.1	1.8	327	20

Table A5. Intensity of solar radiation during photodegradation of the dye (DB-199).

DATE-24-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	717	229	42.6	0.5	355	20
2	12:00	716	236	43.2	0.5	166	13
3	13:00	696	265	43.2	0.8	92	13
4	14:00	657	272	43.9	1	80	18
DATE-25-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	728	222	43.9	0.2	62	17
2	12:00	711	232	44	0.9	128	15
3	13:00	635	229	45	1.5	101	16
4	14:00	526	235	45.3	0.6	126	12
DATE-26-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	742	229	40.7	3.2	264	35
2	12:00	702	250	41.4	1.7	112	32
3	13:00	632	678	43.3	0.3	157	29
4	14:00	558	196	43.8	0.5	237	30
DATE-27-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	836	378	30.8	3.9	169	73
2	12:00	424	350	31	3.5	112	69
3	13:00	662	281	36.1	2.4	83	52
4	14:00	564	276	37.1	2.1	252	42
DATE-29-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	186	165	33.4	0.5	42	49
2	12:00	455	393	34.4	1	115	47
3	13:00	760	202	36.1	1.9	177	43
4	14:00	598	743	37.2	2.3	109	40

Table A6. Intensity of solar radiation during photodegradation of the dye (DB-199).

DATE-30-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	804	211	39.3	0.3	183	35
2	12:00	780	226	39.8	2.1	224	32
3	13:00	723	245	41.4	0.7	250	32
4	14:00	561	404	41.2	2.2	72	28
DATE-31-05-2017							
S.N.	TIME	DSR-1 (W/m²)	DSR-2 (W/m²)	AT (0°C)	AS m/s	WD (W-N)	RH (%)
1	11:00	761	230	37.2	1.8	165	49
2	12:00	772	241	37.9	1.2	218	43
3	13:00	661	215	40.2	2.5	146	40
4	14:00	578	226	39.6	2	181	38