

APPENDIX

APPENDIX A

Chemical list

Chemicals	Formula	Molecular weight	Company
Potassium nitrate	KNO ₃	101.102	Merck
Lithium perchlorate trihydrate	LiClO ₄ • 3H ₂ O	160.44	Merck
Sodium hydroxide	NaOH	40.00	Carlo Erba
Nitric acid	HNO ₃	63.01	Merck
Hydrogen hexachloroplatinate (IV) hydrate	H ₂ PtCl ₆ •xH ₂ O	409.82	ACROS
4-tert-butylpyridine	C ₉ H ₁₃ N	135.21	Fluka
3-methyl-2-oxazolidinon	C ₄ H ₇ NO ₃	101.11	Aldrich
Potassium iodide	KI	165.9	BHD
Iodine	I ₂	253.8	Carlo Erba
Acetylacetone	C ₅ H ₈ O ₂	100.12	Acors
2-propanol	C ₃ H ₈ O ₂	60.12	Merck
95% ethanol	C ₂ H ₆ O	46.07	Excise Department
Lithium chloride	LiCl	42.44	Merck
Methanol	CH ₄ O	32.04	Merck
Phosphoric acid	H ₃ PO ₄	98.00	JT Baker

Chemical list (cont'd)

Chemicals	Formula	Molecular weight	Company
Acetic acid	$C_2H_4O_2$	60.05	BDH
Boric acid	H_3BO_3	61.83	Acors
Acetonitrile	CH_3CN	41.05	Lab Scan
Poly(ethyleneoxide)	$(C_2H_4O)_nH_2O$	3,222	Sigma Aldrich
Titanium dioxide	TiO_2	79.67	Degussa
Sodium acetate	$C_2H_3O_2Na$	82.034	Acros
Sodium sulphate	Na_2SO_4	142.04	Ajax Finechem
Acetone	$C_2H_6O_2$	62.07	Merck
Potassium chloride	KCl	74.55	Carlo Erba
Sodium hydrogen Phosphate	NaH_2PO_4	141.96	Acros
N3 dye	$Ru(C_{26}H_{16}O_8N_2S_2) \cdot xH_2O$	777.73	Sustainable Technologies International, Australia