

Materials List for:

CO₂ Photoreduction to CH₄ Performance Under Concentrating Solar Light

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Materials

Name	Company	Catalog Number	Comments
Ti foil, 99.99%	Hebei Metal Technology Co., Ltd.		
Pt foil, 99.99%	Tianjin Aida Henghao Technology Co., Ltd.		
Ammonium fluoride, 98%	Aladdin	A111758	Humidity sensitive
Glycol, >99.9%	Aladdin	E103323	
Anhydrous ethanol, >99.9%	Aladdin	E111977	Flammable
Acetone, >99.5%	Hangzhou Shuanglin Chemical Co., Ltd.	200-662-2	Irritating smell
Nitric acid, 65.0%-68.0%	Hangzhou Shuanglin Chemical Co., Ltd.	231-714-2	Humidity sensitive
Hydrogen peroxide, 30 wt. % in H ₂ O	Aladdin	H112515	Strong oxidative
Urea, 99%	Aladdin	U111897	
De-ionized water, 99.00%	Laboratory made		
Xe lamp, CELHXF300/ CELHXUV300	Beijing Zhongjiao Jinyuan Co., Ltd.		
Stainless cylinder reactor, CEL-GPPC	Beijing Zhongjiao Jinyuan Co., Ltd.		
Fresnel lens, MYlens	Meiyong Technology Co., Ltd.		
7000 mesh sandpaper	Zibo Taichuan Abrasives Co., Ltd.		
Ultrasonic cleaner, SK2210HP	Shanghai Kedao Ultrasonic Instrument Co., Ltd.		
Thermostatical water bath, DF-101S	Boncie Instrument Technology Co., Ltd.		
Alligator clip	Guangzhou Rongyu Co., Ltd.		
DC constant voltage source, DY-150V 2A	Shanghai Anding Electric Co., Ltd.		
Muffle furnace, KSL-1200X	Hefei Kejing Materials Technology Co., Ltd.		
Quartz glass	Lianyungang Weida Quartz Products Co., Ltd.		
Thermocouples, WRNK-191K	Feiyang Electric Accessories Co., Ltd.		
Electromagnetic stirrer, 85-2	Shanghai Zhiwei Electric Appliance Co., Ltd.		
Vacuum pump, SHB-IIIA	Henan Province Taikang science and education equipment factory		
Gas Chromatograph, GC2014	SHIMADZU		
HT-PLOT Q capillary column	Hychrom		
Optical power meter, CEL-NP2000	Beijing Zhongjiao Jinyuan Co., Ltd.		

Electronic scale, JJ124BC	Shanghai Jingtian Electronic Instrument Co., Ltd.		
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