

A Complete Method for Evaluating the Performance of Photocatalysts for the Degradation of Antibiotics in Environmental Remediation

Bing Wang¹, XuXia Zhang¹, LeCheng Li¹, MengTing Ji¹, Zheng Zheng¹, ChuanHui Shi¹, Zhuo Li¹, Hong Hao¹

¹School of Chemical Engineering, Northwest University

Corresponding Authors

Zhuo Li
lz@nwu.edu.cn

Hong Hao
haohong@nwu.edu.cn

Citation

Wang, B., Zhang, X., Li, L., Ji, M., Zheng, Z., Shi, C., Li, Z., Hao, H. A Complete Method for Evaluating the Performance of Photocatalysts for the Degradation of Antibiotics in Environmental Remediation. *J. Vis. Exp.* (188), e64478, doi:10.3791/64478 (2022).

Date Published

October 6, 2022

DOI

10.3791/64478

URL

jove.com/video/64478

Materials

Name	Company	Catalog Number	Comments
300 W xenon lamp	CeauLight	CEL-HXF300	
AgNO ₃	Aladdin Reagent (Shanghai) Co., Ltd.	7783-99-5	
Air Pump	Samson Group Co.	ACO-001	
BBr ₃	Bailingwei Technology Co., Ltd.	10294-33-4	
Constant temperature circulating water bath	Beijing Changliu Scientific Instruments Co.	HX-105	
Dichloromethane	Tianjin Kemiou Chemical Reagent Co., Ltd.	75-09-2	
Ethanol	Tianjin Fuyu Fine Chemical Co., Ltd.	64-17-5	
Fourier-transform infrared	Bruker	Vector002	
Hexane	Tianjin Kemiou Chemical Reagent Co., Ltd.	110-54-3	
HNO ₃	Aladdin Reagent (Shanghai) Co., Ltd.	7697-37-2	
ICP-OES	Aglient	5110	
K ₂ HPO ₄	Aladdin Reagent (Shanghai) Co., Ltd.	16788-57-1	
Magnesium Sulfate	Tianjin Kemiou Chemical Reagent Co., Ltd.	10034-99-8	
Methanol	Tianjin Kemiou Chemical Reagent Co., Ltd.	67-56-1	
NaOH	Aladdin Reagent (Shanghai) Co., Ltd.	1310-73-2	
NH ₄ NO ₃	Sinopharm Group Chemical Reagent Co., Ltd.	6484-52-2	
o-dichlorobenzene	Tianjin Fuyu Fine Chemical Co., Ltd.	95-50-1	
o-dicyanobenzene	Sinopharm Group Chemical Reagent Co., Ltd.	91-15-6	
Scanning electron microscopy	JEOL	JSM-6390	
Trichloromethane	Tianjin Kemiou Chemical Reagent Co., Ltd.	67-66-3	

Ultraviolet-visible Spectrophotometer	Shimadzu	UV-3600	
X-ray diffractometer	Rigaku	D/max-III A	