

Materials List for:

A Facile Synthesis of Upconversion Metal-Organic Framework Heterodimers

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Materials

Name	Company	Catalog Number	Comments
Yttrium oxide (Y ₂ O ₃ , 99.99%)	Acros	194610500	
Gadolinium oxide (Gd ₂ O ₃ , 99.9%)	Acros	315510250	
Erbium oxide (Er ₂ O ₃ , ≥99.99%)	Aldrich	203238	
Thulium oxide (Tm ₂ O ₃ , 99.9%)	Aldrich	289167	
Ytterbium oxide (Yb ₂ O ₃ , 99.9%)	Macklin	Y820617	
Neodymium oxide (Nd ₂ O ₃ , 99.9%)	Acros	211580250	
Trifluoroacetic acid (99%)	Acros	139721000	
Sodium trifluoroacetate (CF ₃ COONa, >98%)	TCI	T1336	
Oleylamine (OM, 90%)	Acros	129540010	Causes skin irritation; Causes serious eye irritation.
1-octadecene (ODE, 90%)	Acros	129310010	
Oleic acid (OA, 90%)	Aldrich	364525	Causes skin irritation; Causes serious eye irritation.
Anhydrous Ethanol (99.5%)	Beijing Chemical Works		
Cyclohexane (≥99.5%)	Beijing Chemical Works		
N,N-Dimethylformamide (DMF, 99.9%)	J&K	133682	
Acetone (99.9%)	Beijing Chemical Works		
ZrOCl ₂ ·8H ₂ O (98%)	Sigma-Aldrich	224316	
Benzoic acid (99.5%)	Aladdin	B116255	
Nitrosyl tetrafluoroborate (NOBF ₄ , 95%)	Aldrich	175064	Stored in 4 °C; Atmosphere Sensitive;
Polyvinylpyrrolidone (PVP, 8000)	Alfa Aesar	41626	
Tetrakis (4-carboxyphenyl)porphyrin (H ₂ TCPP, >97%)	TCI	A5015	Stored in 4 °C; Atmosphere Sensitive;
H ₂ O (HPLC grade)			Distilled H ₂ O filtered by a Milli-Q purification system