

# Materials List for:

## Continuous Flow Chemistry: Reaction of Diphenyldiazomethane with *P*-Nitrobenzoic Acid

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### Materials

Name	Company	Catalog Number	Comments
Thermometer	HB-USA/ Enviro-safe		Any other instrument scientific company provider works
Benzophenone hydrazone	Sigma-Aldrich		Store at 2-8 °C, 96% purity
Activated MnO <sub>2</sub>	Fluka		≥ 90% purity, harmful if inhaled or swallowed. Refer to MSDS for more safety precautions
Dibasic KH <sub>2</sub> PO <sub>4</sub>	Sigma-Aldrich		Serious eye damage, respiratory irritant. Refer to MSDS for more safety precautions
Dichloromethane (DCM)	Alfa Aesar		≥ 99.7% purity, argon packed
Rotovap	Büchi		accessory parts include Welch self-cleaning dry vacuum model 2027, and Neuberger KNP dry ice trap
Bump trap	Chemglass		Any other instrument scientific company provider works
Neutral Silica Gel (50-200 mM)	Acros Organic/ Sorbent Technology		Respiratory irritant if inhaled, refer to MSDS for more safety precautions
Inert Argon Gas	Airgas		Always ensure proper regulator is in place before using
Medium Porosity Sintered Funnel Glass Filter	Sigma-Aldrich		Any other instrument scientific company provider works
Aluminum Foil	Reynolds Wrap		Any other company works. Used to prevent photolytic damage towards DDM
Para-NO <sub>2</sub> benzoic acid	Sigma-Aldrich		Skin contact irritant, eye irritant, respiratory irritant. Refer to MSDS for more safety precautions
Pure ethyl alcohol (200 proof)	Sigma-Aldrich		≥ 99.5% purity, anhydrous. Highly flammable
Toluene	Sigma-Aldrich		≥ 99.8% purity, anhydrous. Skin permeator, flammable
Ortho-xylene	Sigma-Aldrich		99% purity, anhydrous. Toxic to organs and CNS. Adhere to specifications dictated within MSDS
Diphenyl diazo methane	Produced in-house		Respiratory irritant, refer to MSDS for more safety precautions
Corning reactor	Corning Proprietary		Manufactured in 2009. model number MR 09-083-1A

Stop watch	Traceable Calibration Control Company		Any other company that provides monitoring with laboratory grade accreditation works
Analytical balance	Denver Instruments		Model M-2201, or any analytical balance that has sub-milligram capabilities
Dram vials	VWR		2 dram, 4 dram, and 6 dram vials
Micropipettes	Eppendorf		2-20 $\mu$ L and 100-1000 $\mu$ L micropipettes work
Glass pipettes	VWR		Any other instrument scientific company provider works
GC-MS	Shimadzu GC		Software associated: GC Real Time Analysis
GC vials	VWR		Any other providing company works
Beakers	Pyrex		500 mL beakers
Syringe pumps	Sigma Aldrich		Teledyne Isco Model 500D
Relief valve	Swagelok		Spring loaded relieve valve
One-way valves	Nupro		10 psi grade
Two-way straight valves	HiP		15,000 psi grade