

# Effect of Microwave Synthesis Conditions on the Structure of Nickel Hydroxide Nanosheets

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## Materials

Name	Company	Catalog Number	Comments
ATR-FTIR	Bruker		Tensor II FT-IR spectrometer equipped with a Harrick Scientific SplitPea ATR micro-sampling accessory
Bath sonicator	Fisher Scientific	15-337-409	--
Ethanol	VWR analytical	AC61509-0040	200 proof
Ethylene Glycol	VWR analytical	BDH1125-4LP	99% purity
Falcon Centrifuge tubes	VWR analytical	21008-940	50 mL
KimWipes	VWR analytical	21905-026	--
Lab Quest 2	Vernier	LABQ2	--
Microwave Reactor	Anton Parr	165741	Monowave 450
Ni(NO <sub>3</sub> ) <sub>2</sub> · 6 H <sub>2</sub> O	Ward's Science	470301-856	Research lab grade
pH Probe	Vernier	PH-BTA	Calibrated vs standard pH solutions (pH= 4, 7, 11)
Porosemeter	Micromeritics	--	ASAP 2020. Analysis software: Micromeritics, version 4.03
Powder x-ray diffractometer	Bruker		AXS Advanced Powder x-ray diffractometer; d-spacing, and crystallite size analyses were performed using Highscore XRD software, and crystal structures were created using VESTA 3 software.
Reaction vial	Anton Parr	82723	30 mL G30 wideneck, 20 mL max fill capacity
Reaction vial locking lid	Anton Parr	161724	G30 Snap Cap
Reaction vial PTFE septum	Anton Parr	161728	Wideneck
Scanning electron microscope	FEI	--	Helios Nanolab 400
Urea	VWR analytical	BDH4602-500G	ACS grade