

Materials List for:

## Plasma-Assisted Molecular Beam Epitaxy Growth of Mg<sub>3</sub>N<sub>2</sub> and Zn<sub>3</sub>N<sub>2</sub> Thin Films

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### Materials

Name	Company	Catalog Number	Comments
(100) MgO	University Wafer	214018	one side epi-polished
Acetone	Fisher Chemical	170239	99.8%
Argon laser	Lexel Laser	00-137-124	488 nm visible wavelength, 350 mW output power
Chopper	Stanford Research system	SR540	Max. Frequency: 3.7 kHz
Lock-in amplifier	Stanford Research system	37909	DSP SR810, Max. Frequency: 100 kHz
Magnesium	UMC	MG6P5	99.9999%
MBE system	VG Semicon	V80H0016-2 SHT 1	V80H-10
Methanol	Alfa Aesar	L30U027	Semi-grade 99.9%
Nitrogen	Praxair	402219501	99.998%
Oxygen	Linde Gas	200-14-00067	> 99.9999%
Plasma source	SVT Associates	SVTA-RF-4.5PBN	PBN, 0.11" Aperture, Specify Length: 12" – 20"
Si photodiode	Newport	2718	818-UV Enhanced, 200 - 1100 nm
Zinc	Alfa Aesar	7440-66-6	99.9999%