

Materials List for:

Infrared Degenerate Four-wave Mixing with Upconversion Detection for Quantitative Gas Sensing

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Materials

Name	Company	Catalog Number	Comments
Nd:YAG laser, pulsed	Spectra Physics	Quantarau Pro-290-10	Quantity: 1 (For pumping the mid-IR laser)
Nd:YAG laser, injection seeding system	Spectra Physics	6350	Quantity: 1
NIR Dye laser - OPA system	Sirah	OPANIR	Quantity: 1
HeNe laser	Thorlabs	HNL100LB	Quantity: 1
Dichroic mirror	LASEROPTIK	NA	Quantity: 1, custom order: HR for the mid-IR, transparent for 632 nm
Protected Gold Mirrors	Thorlabs	PF10-03-M01	Quantity: 5
BoxCars Plate	LASEROPTIK	NA	Quantity: 2, Custom order
xy-stage	Thorlabs	DTS25/M	Quantity: 2
500 mm focal length CaF2 lens, Ø2"	Eksmaoptics	110-5523E	Quantity: 1
500 mm focal length CaF2 lens, Ø1"	Thorlabs	LA5464	Quantity: 1
100 mm focal length CaF2 lens, Ø1"	Thorlabs	LA5817	Quantity: 1
Iris, Ø50 mm	Thorlabs	ID50/M	Quantity: 1
ND1 IR filter (ZnSe)	Thorlabs	NDIR10B	Quantity: 1
ND2 IR filter (ZnSe)	Thorlabs	NDIR20B	Quantity: 1
ND3 IR filter (ZnSe)	Thorlabs	NDIR30B	Quantity: 2
Upconversion Detector	NLIR	NA (closest equivalent: U3055 3.0-5.5µm)	Quantity: 1, Custom order
VIS/NIR Detector Card	Thorlabs	VRC2	Quantity: 1, (low intensity)
NIR Detector Card	Thorlabs	VRC4	Quantity: 1, (high intensity)
MIR Detector Card	Thorlabs	VRC6S	Quantity: 1
Thermal Power Sensor Head	Thorlabs	S302C	Quantity: 1
Power meter console	Thorlabs	PM100D	Quantity: 1