

Materials List for:

Gradient Echo Quantum Memory in Warm Atomic Vapor

Olivier Pinel¹, Mahdi Hosseini¹, Ben M. Sparkes¹, Jesse L. Everett¹, Daniel Higginbottom¹, Geoff T. Campbell¹, Ping Koy Lam¹, Ben C. Buchler¹

¹ARC Centre for Quantum Computation and Communication Technology, Department of Quantum Science, The Australian National University

Correspondence to: Ben C. Buchler at ben.buchler@anu.edu.au

URL: <https://www.jove.com/video/50552>

DOI: [doi:10.3791/50552](https://doi.org/10.3791/50552)

Materials

Name	Company	Catalog Number	Comments
Titanium-sapphire laser	M Squared Lasers		SolsTiS
Digital oscilloscope	Lecroy		WaveRunner 44Xi-A
Memory cell	Triad Technology		20 cm long, ⁸⁷ Rb enhanced, 0.5 Torr Kr buffer gas, AR-coated
Filter cell	Triad Technology		7.5 cm long, natural mixture Rb, no buffer gas
Fiber EOM	EOSPACE		PM-0K5-10-PFA-UL
AOM	AA Opto-Electronic		MT80-A1-IR
AOM drive components	Minicircuits		Amplifier ZHL-1-2W
	Minicircuits		Mixer ZAD-6
	Agilent		80 MHz signal source 33250A
Cavities			Custom made triangular ring cavity. FSR = 600 MHz, Finesse = 100. Flat mirrors (for input and output) IBS coating by Advanced Thin Films. Back mirror is 1 m ROC Newport Supermirror (R>99.97%)
Photodiodes	Hamamatsu		S3883
Current Switches	Electronic Design and Research		EDR83915/2 and EDR8276612