## Materials List for: Fabrication of Uniform Nanoscale Cavities via Silicon Direct Wafer Bonding

Stephen R. D. Thomson<sup>1</sup>, Justin K. Perron<sup>2,3</sup>, Mark O. Kimball<sup>4</sup>, Sarabjit Mehta<sup>5</sup>, Francis M. Gasparini<sup>1</sup>

<sup>1</sup>Department of Physics, The State University of New York at Buffalo

<sup>2</sup>Joint Quantum Institute, University of Maryland

<sup>3</sup>The National Institute of Standards and Technology

<sup>4</sup>Cryogenics and Fluids Branch, NASA Goddard Space Flight Center

<sup>5</sup>HRL Laboratories

Correspondence to: Francis M. Gasparini at fmg@buffalo.edu

URL: https://www.jove.com/video/51179 DOI: doi:10.3791/51179

## **Materials**

Name	Company	Catalog Number	Comments
SmartCut	North American Tool	FL 130	Not much is needed per cell. Smaller sizes are available.
Silicon Wafers	Semiconductor Processing Co		There are many suppliers. Pay attention to thickness and thickness variation when ordering.
Deionized Water			General Availability
Peroxide			General Availability
Hydrochloric Acid			General Availability
Ammonium Hydroxide			General Availability
Nitrogen Gas			General Availability
Helium Gas			General Availability
Diamond Paste	Beuler Metadi II	e.g. 406533032	
Diamond Drills	Starlite	e.g. 115010	
Pyrex Dishes			General Availability
Filter Paper	Whatman	1001-110	
Acetone			General Availability
Methanol	1		General Availability
Quartz tubes for flushing furnace			General Availability
Rubber vacuum hose			General Availability