Abstract Submitted for the 4CF14 Meeting of The American Physical Society

Porous Resonators for Chemical Detection STEVEN NOYCE, ROBERT DAVIS, RICHARD VANFLEET, Brigham Young University — Porous resonators offer many advantages in the field of chemical detection, but have traditionally proved difficult to fabricate. Such resonators have an exceptionally higher surface area than corresponding solid resonators, allowing a much higher adsorbate mass which does not proportionally decrease with larger cantilever dimensions. This allows for larger devices, leading to higher quality factors in more diverse environments. Here we present initial work on the fabrication and characterization of porous resonators.

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Date submitted: 12 Sep 2014 Electronic form version 1.4