10. Micro-Fluidic Components and Systems (please choose category from list) | **Poster** (if requesting poster) | **0001** (reference number from website confirmation)

IEEE MEMS 2013 CONFERENCE SAMPLE ABSTRACT AND INSTRUCTIONS FOR ABSTRACT PREPARATION

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The purpose of the Abstract submitted to MEMS 2013 is to tell the Program Committee what new results you propose to present. Therefore, it is important within the first few sentences to state what your primary result is. For example: "This paper reports an improved method for reducing cross-sensitivity in micromachined gyroscopes."

It is also important to identify how the new work differs from previous work of your own group and of other groups, especially work presented at recent and upcoming *international* meetings. For example: "The fabrication process for the gyroscope was reported at MEMS 2010 [1], and an analysis of the new electrode pattern which accomplishes the reduction in cross-axis sensitivity will be reported at IEDM 2012 [2]. This paper will show a complete set of experimental results on five device geometries, and will also report on simulations which provide design guidelines for adapting this method to other types of gyroscopes. The method reported here differs from previous work [3,4] in the specific method of temperature compensation and in the geometry of the electrodes and their placement within the structure.

After an introduction of the basic ideas and how the work relates to other work, present detailed descriptions of methods, device structures, and examples of specific results, whether experimental or theoretical. These results can be supported by figures and/or tables. For example: "A schematic view of the gyroscope is shown in Figure 1, with a close-up detail of the electrode geometry and placement in Figure 2. The fabrication process is schematically shown in Figures 3. Table 1 shows the ratio of cross-sensitivities to in-plane yaw for a set of five devices fabricated with different overall geometries and sensitivities. Also shown in Table 1 are the simulation results for these specific device geometries using the analysis procedure in [2]". After presentation of results, it is useful to compare specific results with related work, to discuss possible discrepancies or agreement, and also to comment on the broader impact of the results.

The abstract is limited to two pages (either A4 Standard). The text is limited to no more than 600 words (please indicate the word count at the bottom of your abstract). Figures and Tables should be collected on page 2. Please make sure that all figures and photographs are clearly visible. If the program committee cannot clearly see and understand the role of the visual material included in the abstract, the material and consequently the abstract likely will be viewed negatively. The header line with abstract category, possible Poster preference, and abstract reference number, and the title, authors (presenting author underlined), short affiliations, and all of the text must fit on the first page, as outlined in this sample abstract. Place figures and tables on the second page. References (in short format) can go on either page. All abstracts submitted on time will be considered for both Oral and Poster Sessions unless the submitting author specifically requests a Poster. This request, if used, should be on the header line of the abstract.

All abstracts are to be submitted in Portable Document Format (PDF) online via the MEMS 2013 website. Abstracts will not be accepted via email, fax or post. Once your abstract has been successfully uploaded, you will receive a confirmation email.

The deadline to submit your abstract to the MEMS 2013 is **Monday, September 10, 2012**.
This is a firm deadline. **(No extension.)**

Word count: 564

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References

[1] S. Ample, *Proc. MEMS 2011*, pp. 100-103.
[2] A. B. Stract and S. Ample, *Tech. Digest IEDM 2012*, pp. 200-205.
[3] S. Mart and S. O. Lution, *J. Microelectromech. Syst.*, 23 (2006), pp. 300-315.
[4] B. Etter and A. P. Proach, *The Gyro Handbook*, 2nd ed. (Singer, 2001), pp. 400-401.

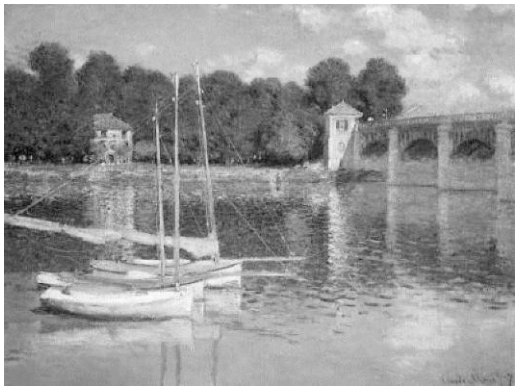

Figure 1: Reflections on corrugated liquid/gas interface, with obstacles, observed by Monet. Rendering with 300 dpi

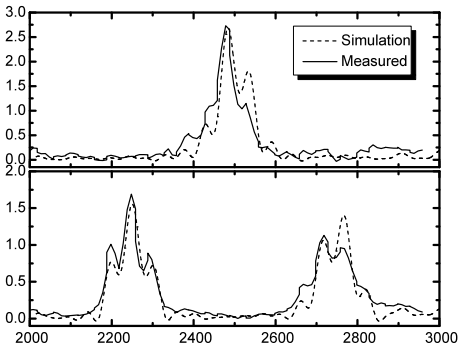

Figure 3. Spectral content of diffracted light from a programmed grating for single (upper) and double (lower) band pass filters. The dashed lines are the simulated spectra while the solid lines are the measured spectra.

Fig. 2: View of National Chiang Kai-shek Memorial Hall, Taipei, TAIWAN.

Figure 4. Manually assembled high-aspect-ratio structure. It is 509.2m high and it has 101-layered structure inside.

Table 1. Sample of a Table Format

Table Head	**Table Column Head**		
	Table Column Subhead	*Subhead*	*Subhead*
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