Preface

The International Symposium on Ultra Clean Processing of Silicon Surfaces (UCPSS) is a bi-annual conference organized by IMEC. The first four editions were held in Leuven, Belgium (1992); Bruges, Belgium (1994); Antwerp, Belgium (1996) and Ostend, Belgium (1998) respectively. The Fifth International Symposium on Ultra Clean Processing of Silicon Surface (UCPSS 2000) was held in Ostend, Belgium on September 18-20, 2000. The issues addressed at this symposium covered all aspects of ultra-clean Si-technology, cleaning and contamination control in both the front-end-of-line (FEOL) and the back-end-of-line (BEOL) processing. This included studies on the Si-surface chemistry and topography and its relation with device performance and process yield, cleaning at the interconnect level, resist strip and polymer removal, cleaning and contamination for various new materials, wafer backside cleaning and cleaning after Chemical-Mechanical-Polishing (CMP).

The scientific programme of UCPSS 2000 consisted of 6 invited and 69 regular contributions, selected out of 96 submitted abstracts. The meeting was attended by more than 320 scientists from all over the world. The order and organization of the presentations at the conference are maintained in these proceedings. Thanks are due to the programme committee for selecting the contributions and to the symposium authors and participants who made this symposium an informative and productive event. We also gratefully acknowledge the financial support of the sponsoring companies.

Judging from the large number of papers dealing with wet cleaning processes, it is clear that this is still the dominant cleaning technology at present. Various papers were dealing with single-wafer wet cleaning which is expected to replace the more standard batch-type cleaning systems in various applications in the coming years. At the previous Symposium a lot of interesting work was presented on the use of ozonated DI-water as a replacement for sulfuric-based mixtures, especially for resist strip. A lot of progress has been made in this area over the last two years and many new exciting results were presented on this topic. Clear progress has also been made in understanding the effects megasonics and in the area of cleaning after Chemical-Mechanical Polishing (CMP). Last but not least a lot of interesting work was presented on environmentally benign processing technology. Especially the efforts on DI-water savings by simplified cleans and improved rinse procedures have led to important environmental savings.

The success of the conference prompted us to start preparing for the Sixth International Symposium on Ultra Clean Processing of Silicon Surfaces (UCPSS 2002). The enthusiasm created by the first five meetings makes us look toward the Sixth Symposium with great excitement.

Marc Heyns
Conference Chairman

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