

Ultra-High-Vacuum Secondary Ion Mass Spectrometer*

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1 Introduction

trometer IX-70S made by VG-IONEX of the U.K. was

Compared with all other surface analyzing tech-

pared with conventional instruments. This article intro-

prominent features, including an extremely high sensi-

2 Main Features and Specifications



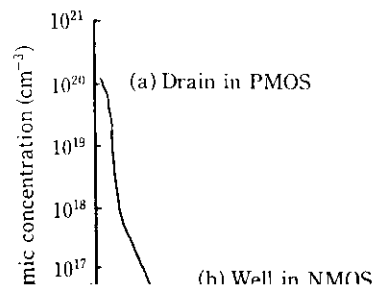
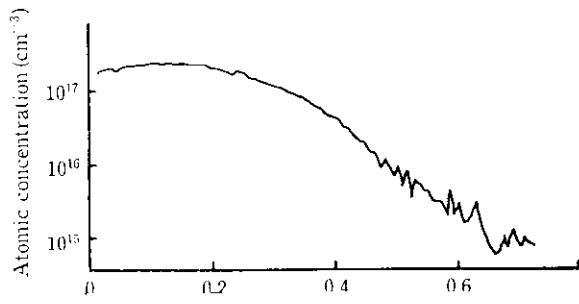
measured. Other liquid metal ions can be applied by changing the chips of the ion source. The lens columns for O_2^+ , Cs^+ and Ga^+ are controlled by the same

detection limits.¹⁾ These are the most important elements in Si. Therefore it is necessary to analyze these elements with high precision. Adopting the slider of the magnet which makes the whole system (except the

Neutral particles are produced in a primary ion beam column by colliding ions into residual gases. In order to depress the background from the neutral particles, all of

magnet) bakable, and connecting the differential lines make the system UHV. Backpressure is 7×10^{-11} mbar. Accordingly the backgrounds of these elements were

keep the whole system at ultra-high-vacuum (UHV)



0 0.2 0.4 0.6 0.8 1.0
Depth (μm)

Fig.3 Depth profiles of B

4 Concluding Remarks