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FINAL REPORT

A COMBINED XPS-MODULATED MOLECULAR BEAM INVESTIGATION OF
THE REACTIONS OF OXYGEN & FLUORINE WITH SILICON ACES

AFOSR-83-0327

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1 August 1983 - 30 July 1984

Final Report Grant AFOSR 83-0327

The equipment purchased with this instrumentation grant has been used to equip an ultrahigh vacuum molecular beam - surface scattering apparatus with surface spectroscopy components as well as a number of electronic and vacuum components needed to carry out the experiments. These experiments which were described in the initial proposal are currently being funded under AFOSR grant 84-NC-029.

All items have been delivered and nearly all are currently in use. The surface spectroscopy components have only been delivered recently and we are awaiting a demonstration of the guaranteed specifications before these items are put into use. The enclosed figure shows a view of the apparatus on which the instrumentation grant components have been installed in its present state. It is anticipated that initial experiments on silicon etching reactions can be carried out within six months.

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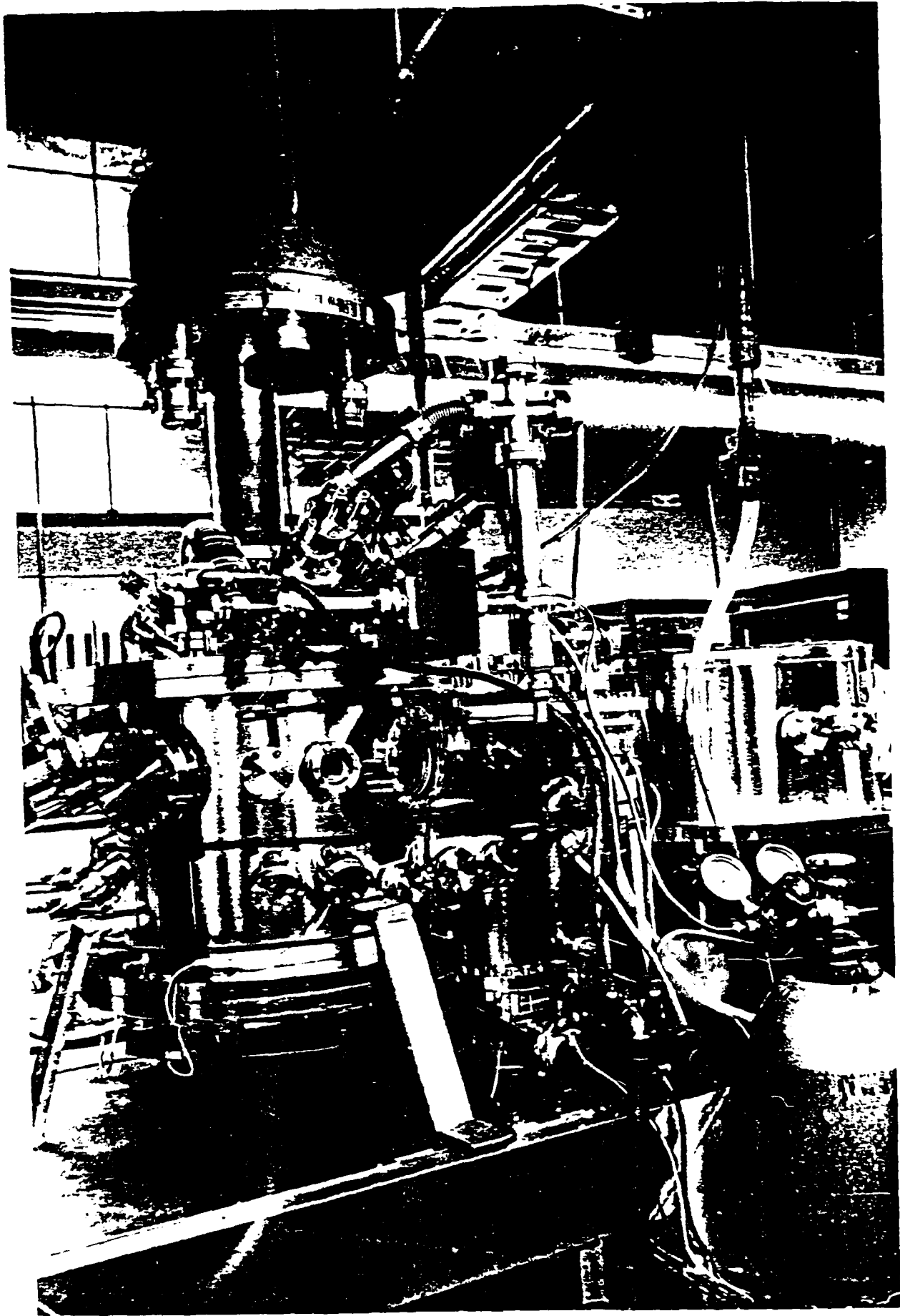


Figure 1