



Figure 2 Comparison of the dislocation activity following 0.6% compressive strain in single crystal LiF irradiated and annealed to produce voids: (a) etched before and after straining and (b) etched before and after pressurization at 3.5 kbar and after straining.

<100> direction, the arrays appear symmetrical about the cavity. There is a size dependant threshold pressure, below which no plastic activity is detectable, and above this threshold the extent of resultant arrays varies with pressure.

Preliminary compression testing of irradiated and annealed material, both unpressurized and pressurized, indicates that the pressure-induced dislocations suppress stage I [8] of the stress-strain curve and raise the flow stress and work-hardening rate. Etching of strained crystals has shown that pressurization inhibits the formation of well-defined slip bands characteristic of stage I (Fig. 2).

Acknowledgement

The authors acknowledge the provision of research facilities by Professor D. Bijl and one of us (R.A.E.) acknowledges the award of a University of Bradford Studentship. The work describes part of a research programme supported by the Science Research Council.

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Received 22 March and accepted 17 May 1972

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