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Material Hardening of a High Ductility Aluminum Alloy from a Bulge Test

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Highlights

- Bulge test used to extract the stress-strain response to large strains
- Bulge deformation monitored with 3D digital image correlation
- Bulge deformed past a pressure maximum, reaching a strain of 0.66
- Past the pressure maximum, strain profiles acquired an increasingly conical shape
- Analysis presented accommodates the anisotropy of the aluminum sheet

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