Abstract Submitted
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Mechanical response of damaged explosive compositions DANIEL DRODGE, DAVID CHAPMAN, WILLIAM PROUD, University of Cambridge — PBX materials often exhibit strain-softening as a consequence of increasing microstructural damage. Good mechanical models thus require an account of loading path dependence. For validation purposes, a series of experiments have been carried out on a PBX system, introducing damage through uniaxial compression to fixed strains, with accompanying X-ray microtomographic imaging to provide insight into the structural changes that occur. The resulting datasets should provide a thorough test of the various PBX models abounding in the literature.

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