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Investigations into Spall strengths of geological materials. J.E. FIELD, C.H. BRAITHWAITE, Cavendish Laboratory, Cambridge University, A.R. GUEST, De Beers Group Services, W.G. PROUD, Cavendish Laboratory, Cambridge University — A number of geological materials e.g. hyperbyssal kimberlite, underwent shock loading in a spall configuration to determine the dynamic tensile strength. VISAR was used as the main diagnostic system. As expected the spall strength was found to be significantly lower than the corresponding dynamic compressive or shear strengths but significantly larger than the quasi-static value. It was also found that the visibility of spall signals decreased with increasing sample thickness, this difference is attributed to the progressive comminution of the material.

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