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**UK Marginal Initiation Characterisation Test for High Explosives** MARK WRIGHT, PETER WILLIAMS, JOHN RICHARDSON, ELIZABETH ED-MONDS, ANDREW JONES, RODNEY DRAKE, Atomic Weapons Establishment, Aldermaston, Reading, Berkshire, RG7 4PR, United Kingdom. — The UK Marginal Initiation Characterisation (MIC) Test has been developed to cover two areas of research: as an initial performance screening test for candidate energetic materials; and as a technique for characterising the effects of composition changes, ageing and temperature on reaction kinetics. Tests have been undertaken on UF-TATB, UF-TATB/HMX and a highly loaded HMX PBX. The initiation system has been tuned to deliver a suitable pressure/time profile to marginally initiate each of these compositions. Subsequently, a study of sensitivity and divergence as a function of charge attributes (e.g. composition and density) has been completed. In addition, first stage hydrocode modelling of the MIC Test has been completed using CTH. This has already proved useful in providing qualitative analysis of the experimental results. The modelling output has highlighted the relationship between the prominent features in the results and the confinement around the explosive sample.

Mark Wright

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