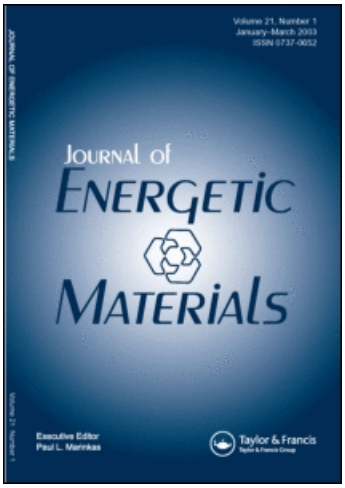

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A review of: "Initiation and growth of explosion in liquids and solids"

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INITIATION AND GROWTH OF EXPLOSION IN LIQUIDS AND SOLIDS

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Cambridge University Press, Cambridge

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Explosives are one of the oldest useful "materials". The current understanding of explosive initiators is largely emperical. In fact, of the technically important materials it is hard to find any other that is both so widely used and so little understood. Explosives can be roughly divided into two categories, initiators and "high" explosives. Initiators can be "set-off" by external stimuli such as a hammer blow, heating, a spark, rubbing, etc. Thus they are used to initiate one or more increasingly more powerful "secondaries" required to "set-off" high explosives. Serious extended studies on the basic mechanisms of initiation have been confined to the U.K. and the U.S.S.R. Currently there is little emphasis on initiation research, except perhaps in the U.S.S.R. A large fraction of the mechanisms invoked to explain initiation resulted from the work of Bowden and Yoffe. These mechanisms were systematized--perhaps codified is a better word--in the original "Initiation and growth of explosion in liquids and solids." The concepts included in this book, particularly the "hot-spot" theory of initiation, have dominated thinking about explosives since the late 40's.

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Everyone interested in initiation, explosives, propellants, pyrotechnics and related materials can use this book to *learn*, or *relearn*, *in their original* form, the concepts that have so strongly influenced this not completely understood field. This can be done readily, the book's 98 pages of text contain 68 figures and 20 tables. Also, most general readers will find this book an interesting introduction to the chemistry and physics of explosives.

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