

## CONTENTS

Contributors	ix
The challenge facing risk assessment by L.E.J. Roberts	1
Phenomena of failure, failure modes of plant materials and probabilistic fracture mechanics by B. Tomkins, D.P.G. Lidbury and L.P. Harrop	13
Probabilistic methods in the development of mathematical models of system failure by J.K.W. Davies	47
Estimation of event frequencies: system reliability, component reliability data, fault tree analysis by P. Andow	59
Pilot study methods based on generic failure rate estimates by N.J. Holloway	71
The use of integral models for predicting jet flows by A.D. Birch and D.R. Brown	95
Dense cloud behaviour in momentum jet dispersion by M.C. Emerson	113
Evaporation and boiling of liquid pools - a unified treatment by D.M. Webber	131
Dispersion of dense vapour clouds in contact with the ground - theory and experiment by J.S. Puttock	145
Theoretical models of combustion phenomena relevant to risk assessment by J.B. Moss	171
The calculation and evaluation of risk estimates by R.F. Griffiths	201
The effect of macro modelling assumptions on risk analysis results by M.A. English and P.J. Waite	217
Controlling principles for the assignment of probability densities for uncertainty propagation by I. Cook and S.D. Unwin	233

