

Calculation of the Model Structure of Emulsion Explosive

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ABSTRACT

Structure is the main aspect affecting the performance of emulsion explosive. Calculation of such structure parameters as osmosis pressure, interface area per unit volume etc. must be helpful to the understanding of the structure of emulsion explosive. This paper has solved the Laplace-Young Equation for simplified monodisperse emulsion system by Galerkin method, and gained the relationship between mean curvature, contact angle, volume fraction, fractional film area and interface area per unit volume. The paper also presents a new expression of osmosis pressure at non zero contact angle.