

## **Acoustic waves in bubbly liquids for two kinds of gas bubbles with phase transitions**

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### **Abstract**

© Published under licence by IOP Publishing Ltd. The propagation of acoustic waves in a mixture of liquid with vapor-gas bubbles is studied. The dispersed phase consists of two fractions of the bubbles differing on gas structure and radii (a two-fractional mixture). The phase transitions take place at each of the fractions. The volume content of the bubbles is the low (about 1%). The dispersion relation, unified for plane, cylindrical and spherical waves is obtained. It is shown that a presence of the second fraction in the structure of a disperse phase of the bubbles changes significantly a dispersion and a dissipation of acoustic waves.

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