Negative ion drift velocity and longitudinal diffusion in mixtures of carbon disulfide and methane.

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(Dated: April 15, 2011)

Abstract

Negative ion drift velocity and longitudinal diffusion has been measured for gas mixtures of carbon disulfide (CS_2) and methane (CH_4). Measurements were made as a function of total pressure, CS_2 partial pressure and electric field. Constant mobility and thermal-limit longitudinal diffusion is observed for all gas mixtures tested. Gas gain for some of the mixtures is also included.

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