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## Temperature Dependence of the Pulse-Height Distributions in Aliphatic Liquid Scintillators\*

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The pulse-height distributions for  $^{131\text{m}}\text{Xe}$  in PPO solutions of aliphatic hydrocarbons such as n-pentane, n-hexane, n-heptane, 2,4-dimethylpentane, 2,3,4-trimethylpentane, 1-pentene, 1-hexene and 1-heptene are investigated as a function of temperature. The pulse-height distributions are found to be shifted toward higher pulse-height with decreasing temperature. The count rates of  $^{131\text{m}}\text{Xe}$  remain unchanged with decreasing temperature. The mechanism of the effect is also discussed.

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