

Intensity map of inelastic neutron scattering from the body-centered-cubic phase of solid ^{4}He showing a new optical phonon mode (the horizontal yellow-green band around 1.3 meV). A classical monoatomic cubic crystal can have only three acoustic phonon branches; the existence of this new branch in a ^{4}He crystal is thought to be due to the large zero-point motion of its atoms. See article 195301.

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