

Coherent Inverse Primakoff-Bragg Conversion of Solar Axions in Single Crystal Bolometers

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The energy spectrum of solar axions is peaked in the neighborhood of 3-4 keV, making coherent conversion to X-rays by the inverse Bragg condition possible. This in turn leads to a dramatic time-dependence of the event rate as the relative position of the Sun and a single crystal bolometer change with time. Two techniques for analyzing these time-dependent processes when the counting rate is low are presented.

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