

**Kashlev, Yu. A.**

**Nonequilibrium statistical thermodynamics of cascade processes in solids: the quasi temperature of cascade particles.** (English. Russian original) [Zbl 1099.82014](#)  
*Theor. Math. Phys.* 126, No. 2, 258-269 (2001); translation from *Teor. Mat. Fiz.* 126, No. 2, 311-324 (2001).

The article is a sequel of a previous paper by the author [*Theor. Math. Phys.* 123, No. 3, 821–832 (2000); translation from *Teor. Mat. Fiz.* 123, No. 3, 485–499 (2000; [Zbl 0988.82041](#))] devoted to the description of the thermodynamics of cascade particles in solids, originating in the presence of radiation of energy higher than the threshold energy needed to dislodge lattice atoms. The treatment relies on the nonequilibrium statistical operator by Zubarev [*D. Zubarev, V. Morozov, G. Röpke, Statistical mechanics of nonequilibrium processes. Vol. 1 (1996; Zbl 0890.00009) and Vol. 2 (1997; Zbl 0890.00008)*] for the introduction of a quasi temperature for the cascade particles.

Reviewer: [Bassano Vacchini \(Milano\)](#)

**MSC:**

[82C35](#) Irreversible thermodynamics, including Onsager-Machlup theory  
[82D20](#) Statistical mechanical studies of solids

Cited in **2** Documents

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