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**Inverse problems of the determining the absorption coefficient and the de-excitation function for certain spatial domains.** (English. Russian original) [Zbl 0799.35223](#)

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**Summary:** The existence and uniqueness of the solutions of new inverse spatial problems are investigated. These problems are concerned with the determination of the absorption coefficient, the determination of the de-excitation function and the combined determination of the absorption coefficient and the de-excitation function, in the case of specified radiation which is incident from outside and a known fraction of the emergent radiation in the case of the stationary radiation transport equation without scattering in an infinite cylinder, a finite cylinder and a cone.

**MSC:**

[35R30](#) Inverse problems for PDEs

[45K05](#) Integro-partial differential equations

[82C70](#) Transport processes in time-dependent statistical mechanics

**Keywords:**

transport equation; dynamics of a radiating gas; isotropic scattering