

**Showalter, R. E.; Walkington, N. J.**

**Elliptic systems for a medium with microstructure.** (English) [Zbl 0823.35063](#)

Bakelman, Ilya J. (ed.), Geometric analysis and nonlinear partial differential equations. Based on papers from the 861st meeting of the American Mathematical Society held at the University of North Texas, Denton, TX, USA, November 2-3, 1990. New York: Marcel Dekker, Inc.. Lect. Notes Pure Appl. Math. 144, 91-104 (1993).

The authors give some existence and uniqueness results for a class of (possibly nonlinear) systems with boundary value conditions modeling diffusion through a medium with a prescribed microstructure. Both the system form and the results are too long to be reported or even summarized here.

For the entire collection see [\[Zbl 0785.00021\]](#).

Reviewer: [A.Bove \(Bologna\)](#)

**MSC:**

[35J65](#) Nonlinear boundary value problems for linear elliptic equations  
[35Q72](#) Other PDE from mechanics (MSC2000)

Cited in **3** Documents

**Keywords:**

[diffusion through a medium with a prescribed microstructure](#)