

COMMENTS

Comment on “Precipitate pattern formation in fluctuating media” [*J. Chem. Phys.* **120**, 1837 (2004)]

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An article entitled “Precipitate pattern formation in fluctuating media” by F. Izsák and I. Lagzi appeared in *J. Chem. Phys.* **120**, 1837 (2004). This article needs the following comments:

(1) As was discussed in Ref. 1, the measurement of the location and timing of formation of Liesegang bands is inconclusive evidence for any theory of such bands. (Quote on p. 8005 of Ref. 1: “Hence, spacing laws are not stringent tests of the mechanism of Liesegang band formation”.)

(2) The supersaturation theory does not explain the majority of different types of Liesegang band formations, as shown in the article mentioned under point 1, and hence this theory has limitations.

(3) In the cited *J. Chem. Phys.* article, F. Izsák and I. Lagzi state that their simulations (based on supersaturation theory) reproduce all experimental findings on (Liesegang) pattern formation for low initial concentration gradient, which is not correct.

(4) Where the appropriate measurements have been made, a region of colloid forms prior to band formation, and a band emerges from within this colloidal region. These observations are beyond the supersaturation theory.

¹S. C. Müller and J. Ross, *J. Phys. Chem. A* **107**, 7997 (2003).