

A MATHEMATICAL STUDY OF THE ONE DIMENSIONAL KELLER AND
RUBINOW MODEL FOR LIESEGANG BANDS

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Abstract. Our purpose is to start understanding from a mathematical viewpoint experiments in which regularized structures with spatially distinct bands and rings of precipitated material are exhibited, with clearly visible scaling properties. Such patterns are known as Liesegang bands or rings. In this paper, we study a one-dimensional version of the Keller and Rubinow model and present conditions insuring the existence of Liesegang bands.