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Italy. *Analysis of a perturbed Cahn-Hilliard model for Langmuir-Blodgett films.* Preliminary report.

An advective Cahn-Hilliard model motivated by thin film formation is studied in this paper. The one-dimensional evolution equation under consideration includes a transport term, whose presence prevents from identifying a gradient flow structure. Existence and uniqueness of solutions, together with continuous dependence on the initial data and an energy equality are proved by combining a minimizing movement scheme with a fixed point argument. Finally, it is shown that, when the contribution of the transport term is small, the equation possesses a global attractor and converges, as the transport term tends to zero, to a purely diffusive Cahn-Hilliard equation. (Received September 15, 2018)