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## A free boundary problem from nonlocal combustion.

**Abstract:** We study a singular perturbation problem for a nonlocal evolution operator. The problem appears in the analysis of the propagation of flames, when the high activation energy limit is considered in a combustion model admitting nonlocal effects.

We obtain uniform estimates and we show that limits are solutions to a free boundary problem in a viscosity sense and in a pointwise sense at regular free boundary points.