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Abstracts of Short Communications and Posters

Section:

10. Partial Differential Equations

1991 MS Classification: 35, 45, 80

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On a two phase free boundary problem

The poster deals with the following problem: find a triplet $(u(x,t), U(x,t), s(t))$, where u, U satisfy the diffusion equations in the two phases separated by the free boundary $x = s(t)$, a kinetic condition and some appropriate conditions. This problem is the mathematical model of transport phenomena in polymers. Sufficient conditions for the global existence of the solution and sufficient condition for the disappearance of phase in finite time are given.

These results are the joint work with Dang Dinh Ang, Dang Duc Trong.

Reference: Dang Dinh Ang, Nguyen Dinh Tri, Dang Duc Trong, Acta Matematica Vietnamica (to appear).