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Explicit Solutions for Stefan-like Problems with Convective Boundary Condition

We give explicit solutions for Stefan-like problems with a particular convective boundary condition at the fixed face for a semi-infinite material in the following cases:
i) Classical two-phase solidification problem with or without density jump;
ii) Two-phase Stefan problem with a mushy zone model; iii) The thawing in a saturated porous medium by considering a density jump and the influence of the pressure on the melting temperature.
These explicit solutions complements the ones given recently in D.A. Tarzia, Explicit and Approximated Solutions for Heat and Mass Transfer Problems with a Moving Interface, In Advanced Topics in Mass Transfer, Mohamed El-Amin (Ed.), InTech Open Access Publisher, Rijeka (2011), Chapter 20, pp. 439-484.
Available from:
http://www.intechopen.com/articles/show/title/explicit-and-approximated-solutions-for-heat-and-mass-transfer-problems-with-a-moving-interface