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Journal Name:	Advances in Research
Manuscript Number:	2014_AIR_11625
Title of the Manuscript:	Heat transfer and solidification of molten iron in a pipe
Type of the Article	Research Article

General guideline for Peer Review process:

This journal's peer review policy states that <u>NO</u> manuscript should be rejected only on the basis of '<u>lack of Novelty'</u>, provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer,
		correct the manuscript and highlight that part in
		the manuscript. It is mandatory that authors
		should write his/her feedback here)
Compulsory REVISION	1) The formulation of RSM model does not exist inside the manuscript.	
comments	May the reviewer ask the author (s) to add the formulation? Some	
	references which can be used for this purpose are as follows:	
	• Numerical Investigation of Laminar and Turbulent Mixed	
	Convection in a shallow Water-Filled Enclosure by various	
	turbulence methods, Scientific Research and Essays, Vol. 6(22),	
	pp. 4826-4838, October 2011.	
	• Numerical Modeling of Turbulence Mixed Convection Heat	
	Transfer in Air Filled Enclosures by Finite Volume Method,	
	International Journal of Multiphysics, Vol. 5(4), pp. 307-324,	
	2011.	
	• Investigation of turbulence mixed convection in air-filled	
	enclosures. Journal of Chemical Engineering and Materials	
	Science, Vol. 2(6), pp. 87-95, 2011.	
	2) Page 2, last sentence "Currently it is well recognized that RSM	
	simulate turbulence in a better way that two-equations models such as the	
	k- ϵ model" needs at least a reference. Some references which can be used	
	for this purpose are as follows:	
	• Numerical Investigation of Laminar and Turbulent Mixed	
	Convection in a shallow Water-Filled Enclosure by various	
	turbulence methods, Scientific Research and Essays, Vol. 6(22),	
	pp. 4826-4838, October 2011.	
	• An Investigation of Laminar and Turbulent Nanofluid Mixed	

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	Convection in a Shallow Rectangular Enclosure Using a Two-	
	nhase Mixture Model International Journal of Thermal	
	Sciences 75, 204 220, 2014	
	Sciences, 75, 204-220, 2014	
	3) At least a reference is needed for Eq. (3).	
	4) Page 5, part 3, "3D transient simulations are carried out using a 56	
	000 element mesh,". Why this amount of meshes has been chosen?	
	The details of "mesh-independence analysis" should to be added to the	
	manuscript.	
	5) At least 1-2 "Numerical Procedure Validation" should be added to the manuscript.	
	6) The effect of inlet velocity (Reynolds number) on heat transfer and solidification should be considered in this research.	
Minor REVISION		
comments	1) All the References are very old and therefore, they are abolished. May	
	the reviewer ask the author (s) to add some new references (2009 and	
	after) to the work?	
	2) Page 5 part 3 " a time steps of 1×10^{-4} s and the " should be	
	corrected to ""a time step of 1×10^{-4} s and the"	
Optional/General		
comments		

Reviewer Details:

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