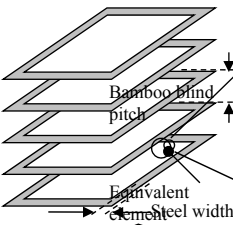
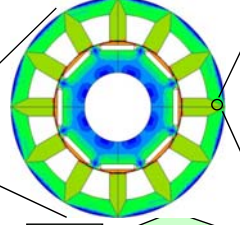
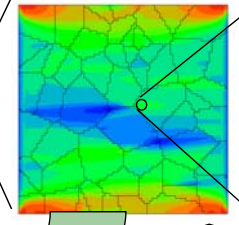
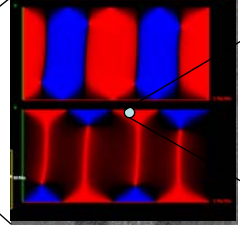
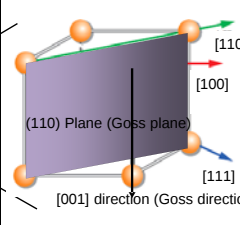


Numerical Calculation of Magnetic Multi-scale

- Material constants data such as B-H curves are connected between the scales.

	Super-Macro(10m-scale) <i>Magnetic shield</i>	Macro(cm-scale) <i>Motor</i>	Meso(mm-scale) <i>Crystal Grain</i>	Micro(μ m-scale) <i>Magnetic domain</i>	Nano(nm-scale) <i>Atomic structure</i>
Model					
	Equivalent B-H of basic structure	B-H curve of material	B-H curve of single crystal	Parameters of LLG	
Appli.	Design of shield	Design of motor	Crystal shape and orientation	Sludge, Ingredient	
Cal	Equivalent B-H	Motor analysis	Polycrystal model	Magnetic domain (μ -MAG, LLG 式)	Molecular dynamic Ab initio

- Some calculated results are in good agreement with measurement data.

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Numerical Calculation of Multi-physics of Electromagnetic Field

Oct. 13, 2011

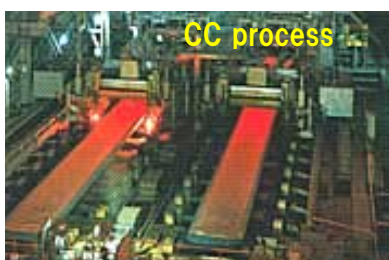
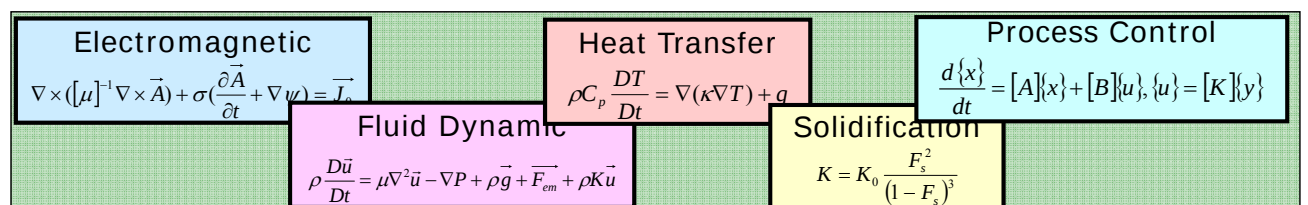


Fig.1 On-line process

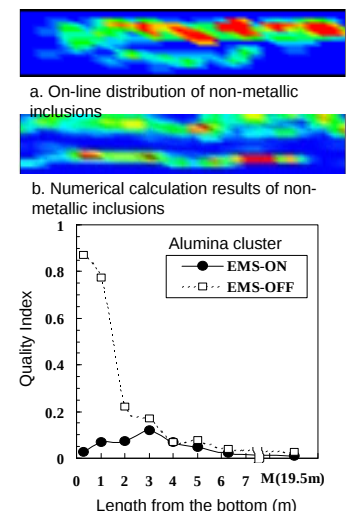
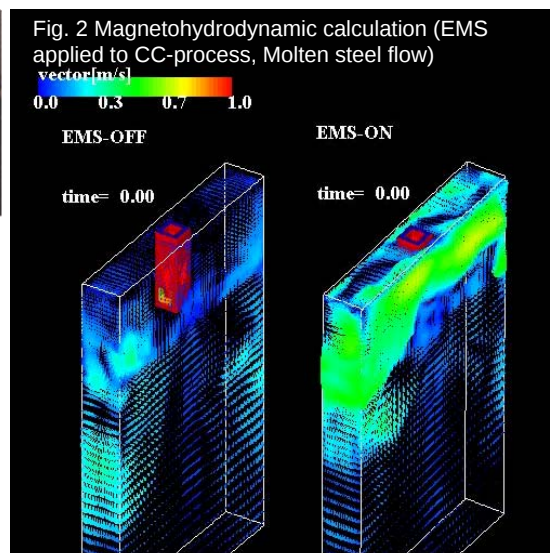


Fig. 3 Quality improvement on-line data by EMS.