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Recent Activities in Research of Steel Plate Products

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Synopsis :

Major Research subjects regarding steel plates in this decade have been picked up along with the market needs. Included are the metallurgy of strengthening and toughening, advancement of TMCP and micro alloying, HAZ toughness control, welding metallurgy, corrosion science, alloying metallurgy, fatigue and fracture control, and computer metallurgy. These researches have enabled the development of many useful steel plates, such as 50 mm thick 9% Ni steel plates, high CTOD steels for offshore structures, cold cracking free HT980 steel plates for penstock, TMCP type pipe and pressure vessel steel plates for sour service, anti-corrosion steel plates for ballast tank of ships, 13Cr-5Ni martensitic stainless steel plates, 2 300 MPa maraging steel and so on. One of the highlights is the extremely low carbon bainitic steel plate, which is an as-rolled type thick 570 MPa plate being weldable without pre-heating.

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The body can be viewed from the next page.

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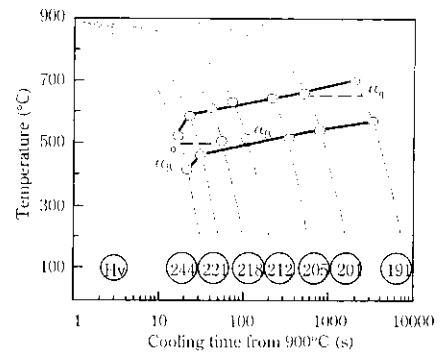
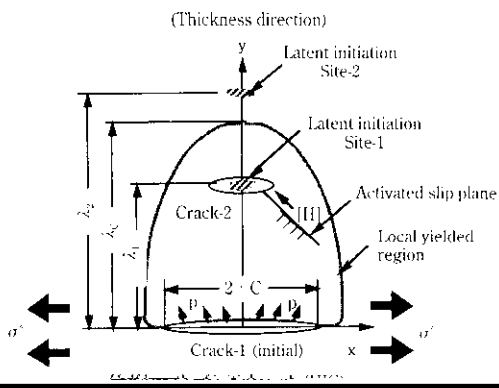


Fig. 2. Schematic explanation of the "latent initiation site model"

λ : Interval of latent initiation sites

Fig. 2 Schematic explanation of the "latent initiation site model"

percent of maintaining a constant microstructure

1000
500
411790

emphasize users' concerns more than ever. In addition,
the research objectives should be carefully selected so as

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