

Al-Si-Mg

*

ACECR

(// // //)

Al-Si-Mg

(TMP)

A

(/ sec⁻¹ / sec⁻¹ / sec⁻¹ °C °C) A

- Al-Si-Mg :

Al-Si-Mg

()

.[]

.[]

/ - / %

/ - / %

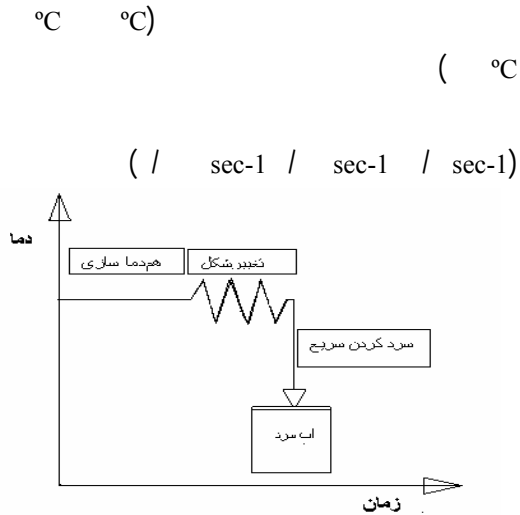
Al-Si-Mg

Al-Si-Mg

A

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A356
 Mg/Si
 Al-Si
 Si
 Al-Si
 Al-Si-Mg

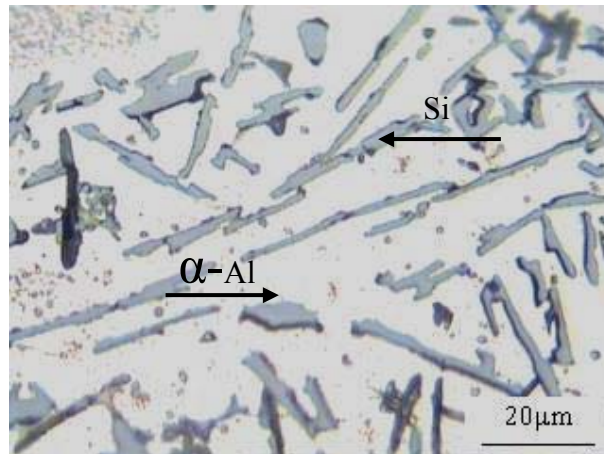
(μm)
 A
 (UTS)
 (EI)
 A
 ()
 (HF) / %
 ASTM F136-84
 Keller
 4208 Instron
 ()

Wt%	Si	Mg	Fe	Cu	Mn	Ti	Zn	Ni
A 356	7.20	0.40	0.24	0.03	0.01	0.20	0.02	0.01

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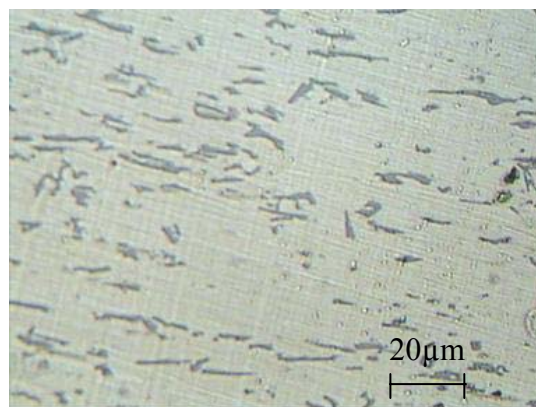
() °C / °C / sec⁻¹ A
 () (Al-Si-Mg) - -
 (μm) ()
 (μm) β-AlFeSi α-AlFeSi Mg₂Si []
 A ()
 ()
 ()

A

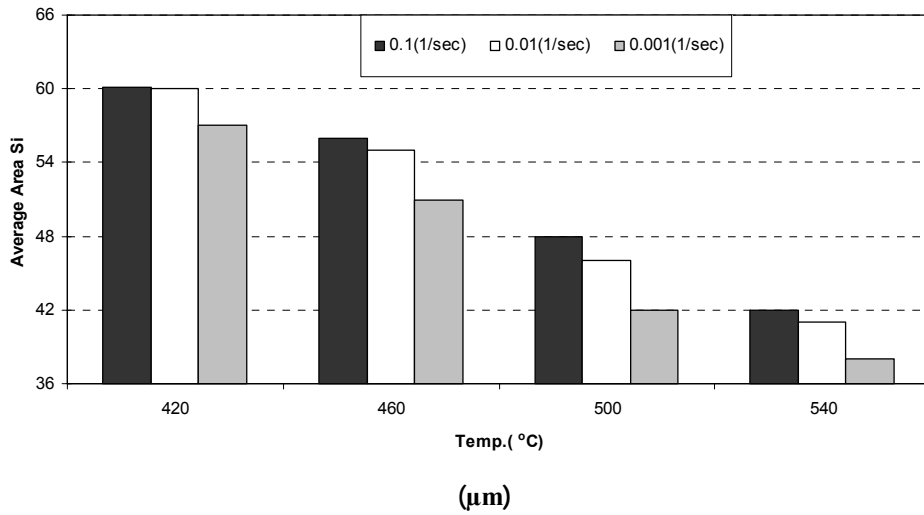


.HF / A :

(α-Al) -(Si)



. T = °C / / sec⁻¹ A :



.

()

) (μm)

() ()

[]

)

(

()

()

(Thermally Activated Process)

A

() ()

A

(μm)

Graham Kraft

(μm)

[]

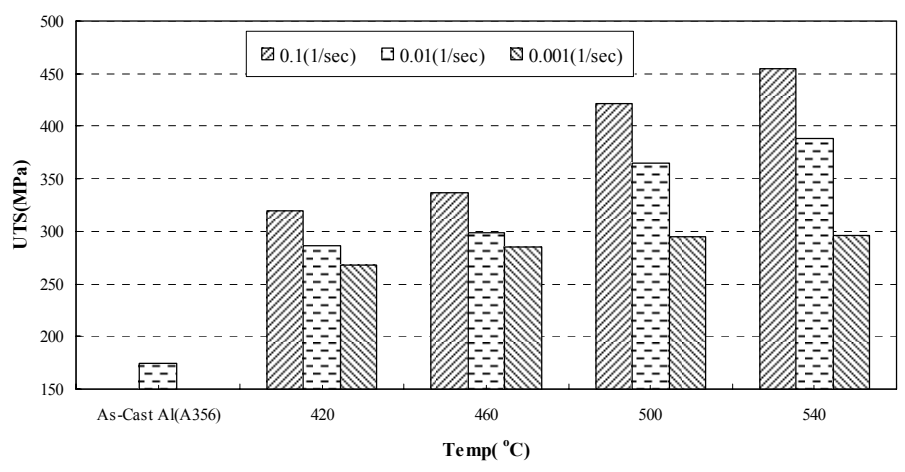
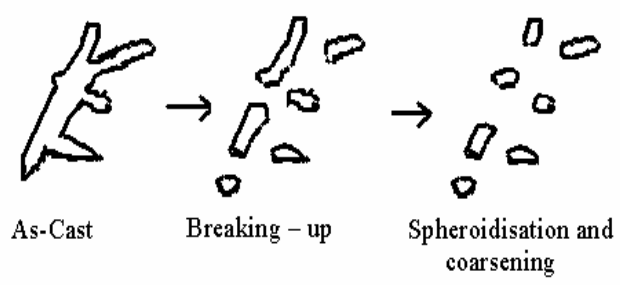
.....

°C

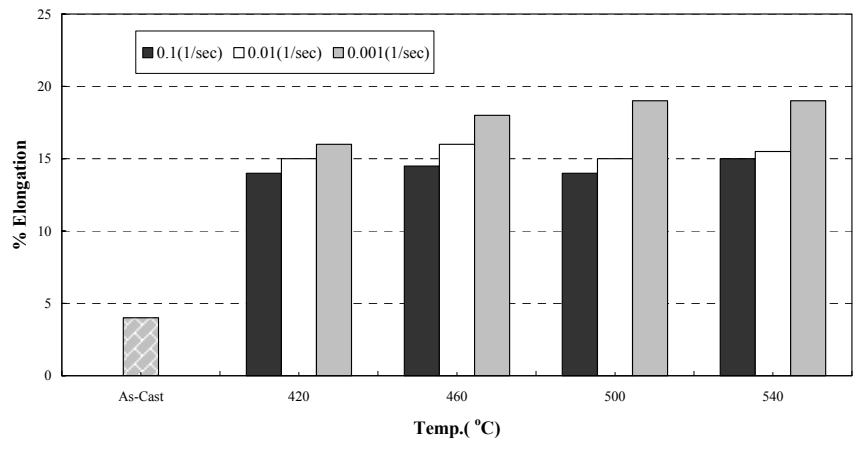
[.]

/ sec-1

()



A :



A :

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