

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

[] []

°C °C)

(°C

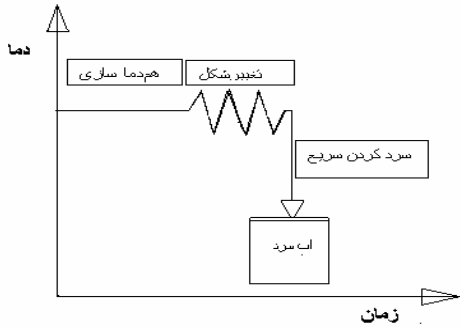
" A356

Mg/Si

Al-Si

(/ sec-1 / sec-1 / sec-1)

Si



.[]

" Al-Si

Al-Si-Mg

(μm)

A

(UTS)

.[]

(EI)

A

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

() °C / °C / sec⁻¹

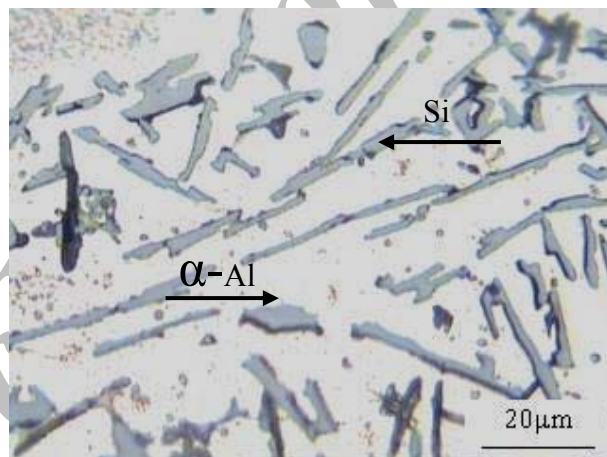
() (Al-Si-Mg) A - -

(μm) ()
(μm) β-AlFeSi α-AlFeSi Mg₂Si

[]
A ()

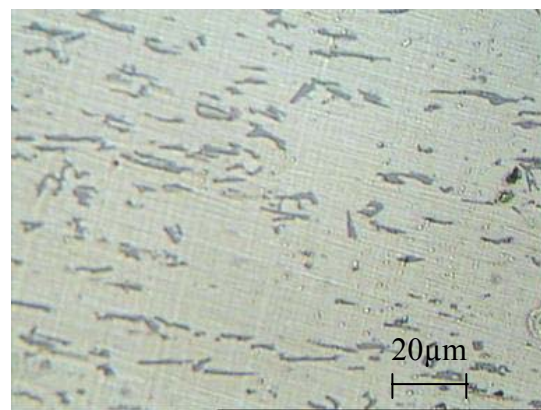
() ()

A

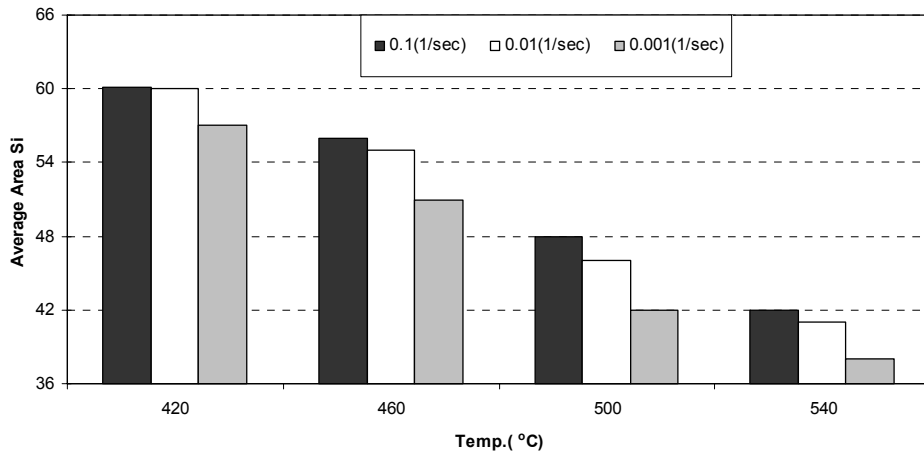


HF / A :

(α-Al) -(Si)



. T = °C / / sec⁻¹ A :



.

(μm)

:

()

(μm)

()

[]

(

()

()

(Thermally Activated Process)

A

() ()

A

(μm)

Graham Kraft

(μm)

[]

[.]

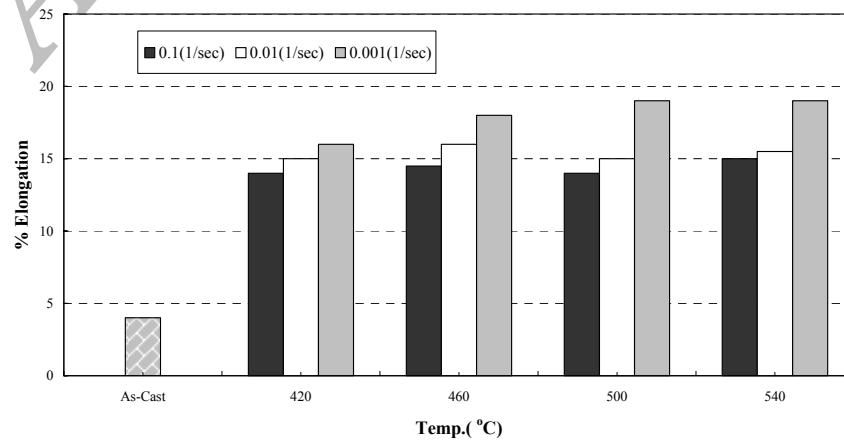
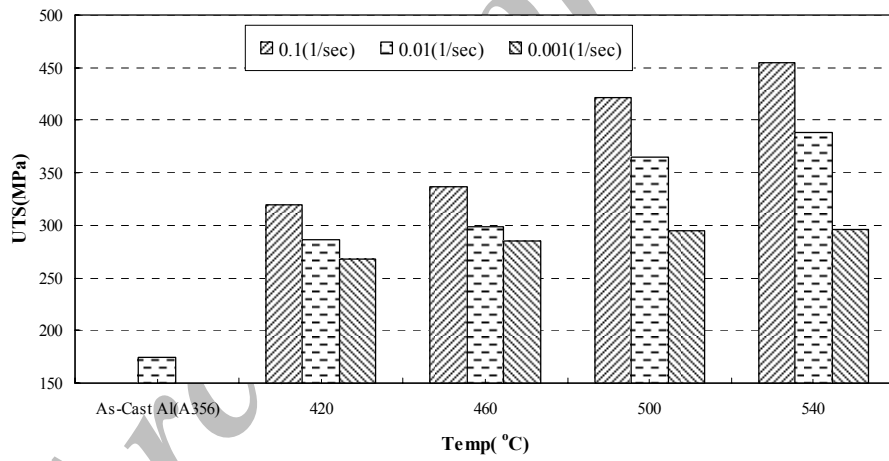
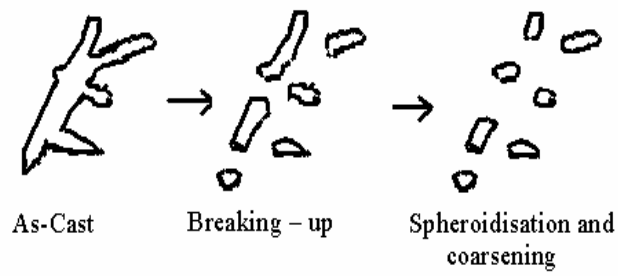
°C

/ sec-1

(

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()



.A

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- ()
- (°C)
- (/ sec⁻¹)
- (°C)
- (/ sec⁻¹)
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