



# Evaluation of Microstructure, Conductivity and Hardness of Al-6Si-0.5Mg-xCu(x=0, 1 & 2) Casting Alloys at Different Ageing Conditions

By Abul Hossain

GRIN Verlag Gmbh Apr 2014, 2014. Taschenbuch. Book Condition: Neu. 210x148x1 mm. This item is printed on demand - Print on Demand Neuware - Scholarly Essay from the year 2014 in the subject Materials Science, , course: PhD, language: English, abstract: Factors that influence the microstructure, conductivity and hardness of Al-6Si-0.5Mg-xCu(x=0, 1 & 2) casting alloys were critically analyzed. Experimental improvements of three alloys were studied and the microstructure, conductivity and hardness have been investigated. The addition of Cu to Al-6Si-0.5Mg alloy resulted in the formation of a hard Al2Cu phase and improved the hardness. The Cu-free and Cu-containing Al-6Si-0.5Mg alloys were homogenized (24hr at 500oC), solution treated (2hr at 540oC) and aged at different temperature and time. Formations of different inter-metallic phases were studied by conductivity and hardness measurement in the both Cu free and Cu added Al-6Si-0.5Mg alloys. Inter-metallic phases (hard phases) formed during ageing after solution treatment and they have strong effect on the age hardening and conductivity. An addition of Cu has strong interaction with Al, Si, Mg atoms and vacancies. The increased conductivity in the materials results from the decrease in concentration of the alloying elements in the aluminum matrix due to decomposition of second...

#### Reviews

If you need to adding benefit, a must buy book. I could comprehended every thing out of this composed e pdf. I am just very happy to tell you that this is the greatest pdf i have study inside my individual existence and could be he finest publication for at any time.

-- Miss Laurie Waters IV

Most of these publication is the greatest publication offered. It is actually rally intriguing through reading period of time. You can expect to like just how the article writer create this publication.

-- Eddie Schuppe

#### Other PDFs



## Adult Coloring Books Reptiles: A Realistic Adult Coloring Book of Lizards, Snakes and Other Reptiles

Createspace Independent Publishing Platform, United States, 2015. Paperback. Book Condition: New. 254 x 203 mm. Language: English. Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*\*.Take your coloring to the next level with this Advanced Adult Coloring Book of Reptiles! Get more...



#### Nautical Coloring Book: An Advanced Adult Coloring Book of Nautical, Maritime and Seaside Scenes

Createspace Independent Publishing Platform, United States, 2015. Paperback. Book Condition: New. 254 x 203 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*\*. Take your coloring to the next level with this Advanced Adult Coloring Book! Get more realistic coloring...



# Ninja Adventure Book: Ninja Book for Kids with Comic Illustration: Fart Book: Ninja Skateboard Farts (Perfect Ninja Books for Boys - Chapter Books for Kids Age 8 - 10 with Comic Pictures Audiobook with Book)

Createspace, United States, 2013. Paperback. Book Condition: New. 229 x 152 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.BONUS - Includes FREE Dog Farts Audio Book for Kids Inside! For a very time limited period you can download...



#### Path of Blood: The Story of Al Qaeda's War on Saudi Arabia

Simon & Schuster UK, 2015. Paperback. Book Condition: New. A new, unread, unused book in perfect condition with no missing or damaged pages. Shipped from UK. Orders will be dispatched within 48 hours of receiving your order. Orders are dispatched Monday â"...



## Preschool Skills Same and Different Flash Kids Preschool Skills by Flash Kids Editors 2010 Paperback

 $Book\,Condition; Brand\,New.\,Book\,Condition; Brand\,New.$ 



#### Ohio Court Rules 2014, Government of Bench Bar

Createspace, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English. Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. Ohio Court Rules 2014, Government of Bench Bar, contains all of the rules relating to Ohio attorneys and judges and...