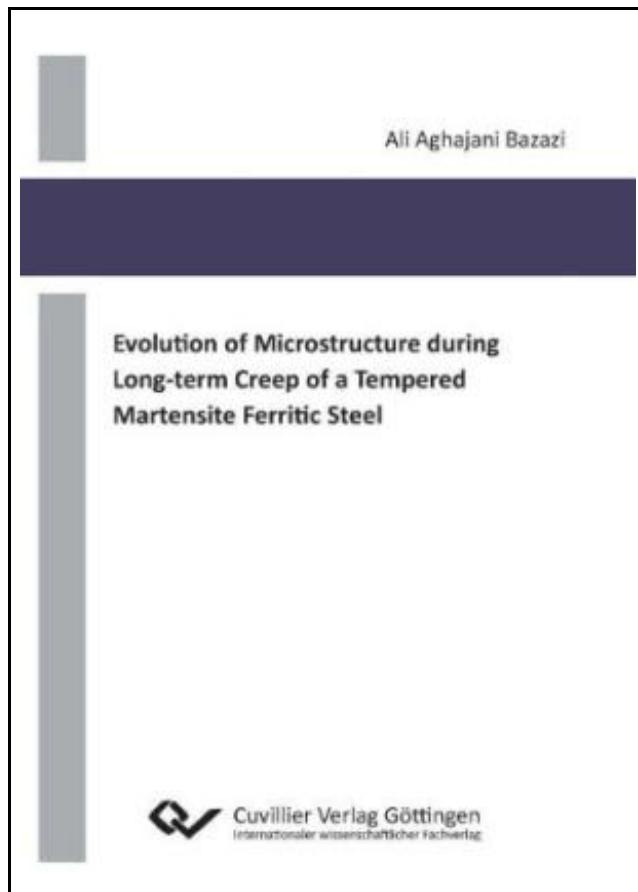


Evolution of Microstructure during Long-term Creep of a Tempered Martensite Ferritic Steel



Filesize: 1.01 MB

Reviews

Great electronic book and useful one. It can be written in straightforward terms rather than difficult to understand. Once you begin to read the book, it is extremely difficult to leave it before concluding.
(Kian Harber)

EVOLUTION OF MICROSTRUCTURE DURING LONG-TERM CREEP OF A TEMPERED MARTENSITE FERRITIC STEEL

[DOWNLOAD PDF](#)

To save **Evolution of Microstructure during Long-term Creep of a Tempered Martensite Ferritic Steel** eBook, make sure you click the link under and download the ebook or have accessibility to other information which are relevant to **EVOLUTION OF MICROSTRUCTURE DURING LONG-TERM CREEP OF A TEMPERED MARTENSITE FERRITIC STEEL** ebook.

Cuvillier Verlag Dez 2009, 2009. Buch. Book Condition: Neu. 213x147x9 mm. Neuware - Tempered martensite ferritic steels are used for critical components in fossil fired power plants that operate in the creep range. The materials contain a high density of dislocations and precipitates form on all types of internal interfaces, the majority of which represent subgrain boundaries. Most previous studies suffer from either only relating to short term creep experiments or from being incomplete in not considering all relevant elements of the microstructure. No systematic effort was made to investigate the evolution of microstructures under conditions of long term creep. In the present study the evolution of the microstructure of a 12% Cr tempered martensite ferritic steel was investigated under conditions of long term aging and creep. Transmission electron microscopy (TEM) and electron back scattered diffraction (EBSD) techniques were used to characterize materials from interrupted creep tests (0.5%, 1%, 1.6% and rupture at 11.9%; creep conditions: 550°C, 120 MPa, rupture time: 139 971 h). It is shown that subgrains coarsen, that the close correlation between carbides and subgrain boundaries loosens during long term creep, and that the frequency of small angle boundaries increases. In addition, the evolution of dislocation densities during long term aging and creep was studied using high angle annular dark field (HAADF) scanning transmission electron microscopy (STEM). During aging the dislocation density remains constant, while during long term creep the dislocation density continuously decreases. All these elementary deformation processes have already been discussed in short term creep studies. The present study shows that they also govern long term creep, however, during long term creep, precipitation and coarsening reactions occur which are not observed during short term creep. Cr rich M23C6, VX carbides and Laves phase were identified as the major precipitates in the microstructure of the 12%...



- [Read Evolution of Microstructure during Long-term Creep of a Tempered Martensite Ferritic Steel Online](#)
- [Download PDF Evolution of Microstructure during Long-term Creep of a Tempered Martensite Ferritic Steel](#)
- [Download ePUB Evolution of Microstructure during Long-term Creep of a Tempered Martensite Ferritic Steel](#)

See Also



[PDF] Programming in D

Follow the link listed below to get "Programming in D" PDF document.

[Save ePub »](#)



[PDF] Psychologisches Testverfahren

Follow the link listed below to get "Psychologisches Testverfahren" PDF document.

[Save ePub »](#)



[PDF] ESL Stories for Preschool: Book 1 (Paperback)

Follow the link listed below to get "ESL Stories for Preschool: Book 1 (Paperback)" PDF document.

[Save ePub »](#)



[PDF] Adobe Indesign CS/Cs2 Breakthroughs

Follow the link listed below to get "Adobe Indesign CS/Cs2 Breakthroughs" PDF document.

[Save ePub »](#)



[PDF] Read Write Inc. Phonics: Yellow Set 5 Non-Fiction 3 Fun at the Fair (Paperback)

Follow the link listed below to get "Read Write Inc. Phonics: Yellow Set 5 Non-Fiction 3 Fun at the Fair (Paperback)" PDF document.

[Save ePub »](#)



[PDF] Have You Locked the Castle Gate?

Follow the link listed below to get "Have You Locked the Castle Gate?" PDF document.

[Save ePub »](#)



[PDF] Readers Clubhouse Set a Dan the Ant (Paperback)

Access the web link under to get "Readers Clubhouse Set a Dan the Ant (Paperback)" PDF document.

[Download eBook »](#)



[PDF] Harts Desire Book 2.5 La Fleur de Love

Access the web link under to get "Harts Desire Book 2.5 La Fleur de Love" PDF document.

[Download eBook »](#)



[PDF] History of the Town of Sutton Massachusetts from 1704 to 1876 (Paperback)

Access the web link under to get "History of the Town of Sutton Massachusetts from 1704 to 1876 (Paperback)" PDF document.

[Download eBook »](#)



[PDF] Stories from East High: Bonjour, Wildcats v. 12

Access the web link under to get "Stories from East High: Bonjour, Wildcats v. 12" PDF document.

[Download eBook »](#)



[PDF] Genuine] kindergarten curriculum theory and practice(Chinese Edition)

Access the web link under to get "Genuine] kindergarten curriculum theory and practice(Chinese Edition)" PDF document.

[Download eBook »](#)



[PDF] Freight Train (UK ed)

Access the web link under to get "Freight Train (UK ed)" PDF document.

[Download eBook »](#)