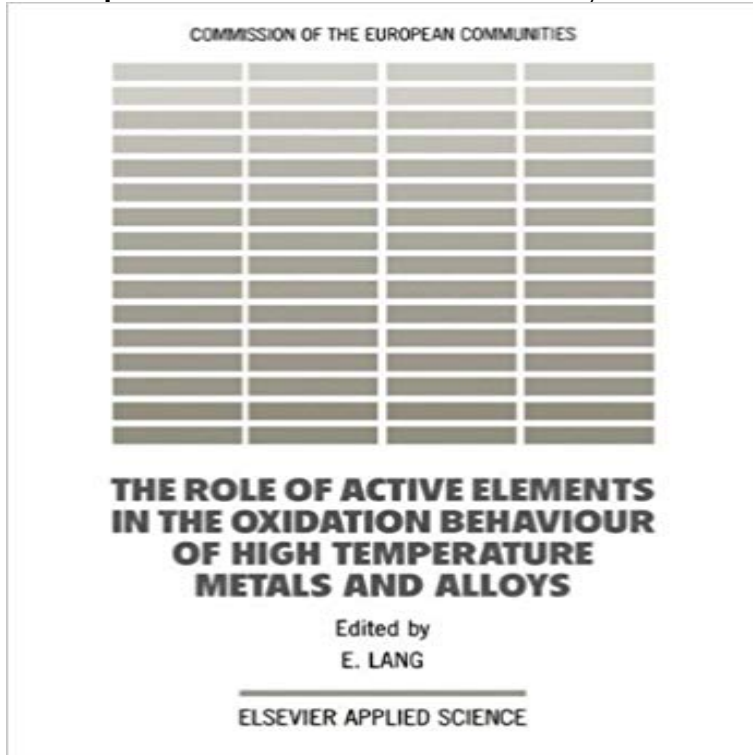


# The Role of Active Elements in the Oxidation Behaviour of High Temperature Metals and Alloys



Metals and alloys rely for their application at high temperature on the formation and retention of oxide scales, which act as a barrier between the metallic substrate and the reactive species in the environment such as O, S, N, C, Cl, etc. This protection concept requires that the oxide grows slowly, develops a dense, uniform layer, is well adherent, has sufficient ductility to accommodate plastic deformation of the substrate and is resistant to thermal cycling. For many years it has been known that small concentrations of certain active elements such as Y and the rare earths, as well as carbon and sulphur, can exercise a significant influence upon the oxidation! corrosion behaviour of high temperature metals and alloys. An increasing number of experimental studies on this topic have been published recently. However no generally accepted understanding with regard to the detailed mechanisms and the way in which alloy composition and structure, temperature and environmental conditions, etc., are interacting has yet been achieved, although many - often controversial - theories and ideas have been presented. It therefore seemed to be an appropriate time to bring together a group of experts to review and evaluate the current state-of-the-art and to discuss various aspects of this important topic.

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Lots of the topics covered in this website are part of independent living skills and you may be surprised by how much is involved in looking after yourself. You don't have to be completely on your own and if you are finding things difficult you should always have someone to turn to for help. This does not [...]

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It is your social worker or young personal advisor's job to make sure you are registered with a doctor (also called GP) and a dentist. It is important not to leave registering with a GP until you need medical help. Keep the contact details for your doctor and out of hours contact number safe. DENTIST [...]

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This is perhaps one of the biggest things you have to sort out as you leave care and this is why there is lots of help and support available for you. The options available in your area may affect your choice of when you want to leave care. Unfortunately quite a large number of care [...]

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