BOOK SECTION

CORROSION OF REINFORCEMENT IN CONCRETE CONSTRUCTION - Proceedings of the Fourth International Symposium held during 1996 at Cambridge, (Ed.) C.L.Page, P.B.Bomforth and J.W.Figg, *The Royal Society of Chemistry,* Thomas Graham House, Science Park, Milton Road, CAMBRIDGE CB4 4WF, U.K. ISBN: 0 85404 731 X (1996) pp xii + 676

Concrete has become very important and indispensable material of construction. Compared to any other man-made material, it is used in greater quantities. It is a convenient material for industrialised mass production. In addition to being a structural material which is economical, resistant to fire and water, it is also amenable for decorative or architectural treatment. Due to the varieties of its application, it is considered as *Universal material.* Because of the wide range of applications, the reinforced and plain concrete structures are subject to the aggresive influences of environmet also. The rapid growth of chemical industry, Large scale building operations in localities with saline soils or containing mineral waters, structures to meet special requirements for resistance and durability etc. have provided for an urgent comprehensive research in the area of corrosion of reinforcement in concrete.

The technical papers (sixty four in number) presented in the fourth International Symposium on *Corrosion of Reinforcement in Concrete Construction* held during July 1996 at Cambridge make a significant advancement in the area of corrosion of reinforcement in concrete. The contributors include researchers,academics and field engineers. The contributions are broadly divided into

(1) Mechanism & macrocell interactions
(2) Chloride induced corrosion
(3) Miscellaneous effects
(4) Monitoring & measurement
(5) Cathodic protection
(6) Electrochemical removal of chloride
(7) Realkalisation
(8) Patch repair & hydrophobic treatment
(9) Admixtures & high performance concrete and
(10) Supplimentary corrosion protection.

The five papers under the first group clearly brings out the different approaches available to understand corrosion as well as the preventive measures available. There are twelve papers discussing chloride induced corrosion, effect of temperature, time etc as well as concrete mix requirements for chloride contaminated environments. There are four papers dealing with carbonation and reinforcement corrosion, stress corrosion in pre-stressed concrete etc. discussed under *Miscellaneous effects.* Under *Monitoring & measurement* twelve papers are presented. Different ways and means of measurements of corrosion are discussed in detail. There are nine papers discussing *Cathodic protection.* They not only present the research work carried out, but also report case histories. The four papers under the theme *Electrochemical chloride removal* deal with case studies and their effect on bond strength etc. There are four papers discussing the *Mechanism as well asthe effects of Realkalisation.* The five papers dealing with *Patch repair & hydrophobic treatment* are very informative. The *Admixtures and high performance concrete* have been discussed in four papers. There are five papers discussing *Supplimentary corrosion protection.* They deal with galvanised steel and stainless steel as reinforcements.

The contributions contained in this volume expose the reader to understand the state of the art. It is valuable not only to the researcher, but also to the practicing engineer.

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