
Keywords : steel; inhibitors; chloride; surface; pitting; corrosion


Keywords : chloride; corrosion products; iron; sulphate; phosphate; sodium; oxygen; mechanisms; iodide; chlorate; nitrate; UV/vis; complexes; hydroxide complexes; corrosion


Keywords : chloride; pitting; potential; corrosion; mechanisms; calcium; steel; crystallinity; surface; inclusions; oxides


Keywords : iron; plasma; soxhlet; chloride


Keywords : iron; geothite; magnetite; lepidocrite; akaganeite; water; sulphate; salts; methods; desalination; sodium; sodium hydroxide; hydroxide; chloride; soxhlet; nitrogen; alkaline sulphite; oxides; surface


Keywords : iron; corrosion products; acetyl acetone; corrosion


Keywords : corrosion products; iron; marine; mechanisms; akaganeite; corrosion


Keywords : corrosion; corrosion inhibitors; inhibitors; wrought iron; iron; sodium; sodium hydroxide; hydroxide; oxides; chloride; mechanisms; ethylenediamine; desalination
Keywords: iron; sodium; fluoride; chloride; iodide; pH; mechanisms; tafel slopes; corrosion; corrosion potential; potential; Fe; electrodes; kinetics

Keywords: iron; chloride; steel; distilled water; water; tafel slopes; complexes; mechanisms; Bockris mechanism; electrochemistry; kinetics

Keywords: corrosion; iron; hydrogen chloride; chloride; surface; lepidocrite; atmospheres; urban; XRD; corrosion products; RH; oxidation; oxygen; magnetite; inclusions; hydrogen; sulphides

Keywords: iron; phosphorous; corrosion; corrosion rate; carbon; cementite; cathodic; distribution; FTIR; corrosion products; Mossbauer; XRD; rust; steel; chloride; sulphate; mechanisms

Keywords: magnetic; resistance; polarisation resistance

Keywords: coatings; cleaning; atmospheres; degree of rusting; corrosion rate; time of wetness; corrosion; iron

Keywords: oxides; hydroxide; iron

Keywords: surface; methods; corrosion; mechanisms; copper; alloy; corrosion products; semiconductor

Keywords: akaganeite; magnetic; temperature; goethite; Mossbauer; minerals; surface; iron; water; structure; mechanisms

Keywords: iron; inhibitors; corrosion potential; magnetite; geothite; impedance spectroscopy; corrosion; corrosion inhibitors

Bresle, A. The corrosion of steel and the dangerous chlorides. *Industrial Finishing and Surface Coatings* 15-18 (1976). B.
Keywords: corrosion; steel; chloride; sulphur dioxide; rust; so2; alloy; nickel; copper; water; salts; pitting; surface; coatings

Keywords: corrosion products; iron; corrosion; mineralised organic remains

Keywords: sand; oxides; chromium; calcium; sodium; magnesium; phosphorous; titanium; iron; methods; iron oxide; coatings


Keywords: sand


Keywords: chloride; iron; surface; electrodes; desalination; diffusion; potential; wrought iron; electrolysis; surface area


Keywords: kinetics; hematite; magnetite; curie temperature; temperature


Keywords: radiography; x-ray; corrosion; fast fourier transform


Keywords: metastable; alloy; DSC; thermomagnetometry; XRD; Mossbauer; curie temperature; magnetite; magnetic


Keywords: waterlogged; pH; Eh; potential measurement; salts; carbonate; mechanisms; sulphides


Keywords: radiography


Keywords: geothite; iron; hydroxide; akaganeite; SEM; STEM


Keywords: storage; iron; sodium hydroxide; hydroxide; carbonate; alkaline sulphite; water; wrought iron; dissolved oxygen; oxygen; chloride; corrosion; RH; sulphate; ethylenediamine


Keywords: corrosion; pH; differential aeration


Keywords: lepidocrite; maghemite; hematite; DSC; XRD; TEM; Mossbauer; FTIR; magnetic; kinetics; thermomagnetometry

Keywords: green rust; rust; iron; hydroxide; sulphate; sodium; sodium hydroxide; carbonate; electrodes; potential; pH; XRD; Mossbauer; oxides; oxidation; mechanisms; geothite; magnetite; thermodynamics


Keywords: chloride; corrosion; iron; mechanisms; oxygen; potential; sulphuric acid; oxides; maghemite; surface; complexes; pH


Keywords: boiling; water; VHN; martensite; microstructure


Keywords: iron; corrosion; hydrogen; cathodic; tafel slopes; Benzotriazole


Keywords: salts; iron; sodium; chloride; magnesium; calcium; sulphate; RH; mechanisms; weight loss; so2


Keywords: mechanisms; sulphur dioxide; cathodic inhibition; geothite; sodium chloride; magnetite; anodic inhibition


Keywords: mechanisms; sodium chloride; potassium chloride; magnesium; carbonate; water; inhibitors; sulphur dioxide; history; wrought iron; steel


Keywords: mechanisms; ferricyanide; sulphur dioxide


Keywords: phosphate; iron; vivianite; strengite


Keywords: oxidation; iron; raman; Mossbauer; iron chloride; chloride; complexes; TG-MS


Keywords: iron; sulphides; corrosion products; waterlogged; corrosion; pyrite; siderite; goethite; greigite; mackinawite; vivianite; rozenite; XRD; oxidation; sulphate


Keywords: DTA; iron oxide; hematite; TGA; XRD; mechanisms


Keywords: iron; sulphate; potential; diffusion; mechanisms; SECM; passivation; graphite electrode; electrodes; IR


Keywords: radiation; akaganeite
Keywords: structure; oxides; hydroxide

Keywords: thermomagnetometry; siderite; Fe; mechanisms; magnetite; oxidation; nitrogen; oxygen; hematite; calcite; carbon; XRD

Keywords: corrosion; soil; electrochemical sensor; nitrate; sand; clay; silt; resistivity; polarisation resistance

Keywords: soil; urban; sand; loess; phosphate; chloride; sulphate; passivation; organics; pH

Keywords: minerals; corrosion products; goethite; magnetite; limonite; vivianite; pyrrhotite; siderite; copper; nitrate; carbonate; oxides; chloride; silver; sulphides; iron; water; pyrite

Keywords: chloride; marine; iron; corrosion; corrosion products; sodium; sodium chloride; akaganeite; geothite; lepidocrite; structure; pH; green rust; rust; magnetite

Keywords: copper; iron; organics; FTIR; UV/vis; mineralised organic remains

Keywords: akaganeite; maghemite; hematite; TEM; TGA; kinetics

Keywords: dpa; glass fibre brush; electrolytic reduction; oxalic acid; alkaline glycerol; casting; alkaline sulphite; TEA; VPI 260; flash rusting; surface; waterlogged

Keywords: iron; corrosion; corrosion products; Mossbauer; magnetite; lepidocrite; geothite; akaganeite

Keywords: soil; corrosion; steel; corrosion rate; water; resistivity; porosity; chloride; sulphate; bicarbonate; carbon; oxygen; iron; cathodic; mechanisms

Keywords: sodium chloride; distribution; Fe; corrosion
Heywood, S. C. Ferrous metal treatments undertaken by the museum of London: observations and a statistical evaluation. (2000). University of Durham. Master of Art. thesis. Keywords : mechanisms; sulphate; waterlogged; washing; temperature; sodium; sodium hydroxide; hydroxide; pH; corrosion; chloride; alkaline sulphite; magnetite; surface; organics; lithium hydroxide; methods; soxhlet; nitrogen; rust; electrolysis; electrodes; hydrogen; CARS; t-test; chi squared

Higuchi, S. Changes in the Conservation Treatment of Excavated Iron Objects in Japan. National Research Institute of Cultural Props Tokyo: (1993).29-34 I25. Keywords : iron; nitrocellulose; resin; synthetic resin; wood; rust; desalting; chloride; sulphate; co-polymer; acrylic emulsion; acetone KW - gypsum KW - zaponlack


Hjelm-Hansen, N., Van Lanschot, J., Szalkay, C. D. & Turgoose, S. Electrochemical assessment and monitoring of stabilisation of heavily corrodes archaeological iron artefacts. Corrosion Science 35, 767-774 (1993). H. Keywords : iron; polarisation resistance; impedance spectroscopy; sodium hydroxide; passivation; corrosion; volume; magnetite; RH; chloride; resistance; sodium; hydroxide; complexes; corrosion rate

Honzak. Macroscopic Structure of the Rust Layer Formed in the Atmospheric Corrosion of Steel. Br. Corros. (1973). 8, 162-166 110. Keywords : steel; atmospheres; sulphur dioxide; chloride; ammonia; nitrate; structure; rust; corrosion

Hurst, H. J., Levy, J. H. & Warne, S. S. J. Application of variable atmosphere thermomagnetometry to the thermal decomposition of pyrite. Reactivity of Solids 8, 159-168 (1990). h. Keywords : atmospheres; pyrite; complexes; XRD; TGA; pyrrhotite; diffusion; Fe; siderite; thermomagnetometry

Ishikawa, T., Ueno, T., Yasukawa, A., Kandori, K., Nakayama, T. & Tsubota, T. Influence of metal ions on the structure of poorly crystallized iron oxide rusts. Corrosion Science 45, 1037-1049 (2003). I. Keywords : structure; iron; oxides; rust; nitrate; ferrhydrate; oxygen; water; chloride; Mossbauer; XRD; nitrogen; TEM; Cu; geothite; steel

Ishikawa, T., Kumagai, M., Yasukawa, A., Kandori, K., Nakayama, T. & Yuse, F. Influences of metal ions on the formation of gamma-FeOOH and magnetite rusts. Corrosion Science 44, 1073-1086 (2002). i. Keywords : magnetite; rust; oxidation; iron; sulphate; Cu; crystallinity; hematite; lepidocrite; corrosion; akaganeite; geothite

Ishikawa, T., Katoh, R., Yasukawa, A., Kandori, K., Nakayama, T. & Yuse, F. Influences of metal ions on the formation of β FeOOH particles. Corrosion Science 43, 1727-1738 (2001). I. Keywords : chloride; nitrogen; water; x-ray; structure; akaganeite; TEM; copper; chromium; titanium; nickel; EXAFS; hydrolysis constant; porosity

Ishikawa, T., Kondo, Y., Yasukawa, A. & Kandori, K. Formation of magnetite in the presence of ferric oxyhydroxides. Corrosion Science 40, (7):1239-1251 (1998). I. Keywords : magnetite; oxyhydroxide; iron; iron oxide; oxides; chloride; lepidocrite; oxygen; XRD; TEM; FTIR; mechanisms

Johnston, J. H. & Logan, N. E. A precise iron 57 mossbauer spectroscopic study of iron (III) in the octahedral and channel sites of akaganeite (beta iron hydroxide oxide). Journal of the Chemical Society Dalton Transactions 13-16 (1979). J. Keywords : iron; Mossbauer; akaganeite; oxides; structure; hydroxide; nitrogen

Keywords: surface; geothite; lepidocrite; akaganeite; colloids; conductivity; mechanisms; so2; water; RH

Keywords: iron; surface; rust; methods; chi squared; storage; electrolysis; water; sodium; hydroxide; alkaline sulphite; RH; minerals; chloride; sodium hydroxide; corrosion; porosity

Keywords: copper; iron; RH; sulphur dioxide; nitrogen; nitrogen dioxide; pitting; corrosion; corrosion products; sulphate; so2; nitrate; AFM; synergy

Keywords: iron; chloride; corrosion inhibitors; corrosion; akaganeite; lithium hydroxide; intensive washing; ionophoresis; ammonia; complexes; hydroxide; methods; temperature

Keywords: mechanisms; minerals; phosphate; akaganeite; geothite; carbonate; RH; sodium sulphite; sodium hydroxide; corrosion; iron

Keywords: iron; cross sections; cracking; mechanisms; corrosion products; storage

Keywords: desalting; iron; methods; lithium hydroxide; sodium hydroxide; chloride; corrosion products

Keywords: radiography

Keywords: oxyhydroxide; water

Keywords: carbonate; green rust; rust; bicarbonate; FTIR; mechanisms; oxidation; raman

Keywords: iron; molybdenite; iron oxy chloride; lawrencite; gamma iron oxy hydroxide; akaganeite

Logan, J., A., An approach to handling large quantities of archaeological iron. ICOM. 84.22.14-84.22.18 (1984). L.
Keywords: iron; corrosion; storage; sodium; sodium hydroxide; hydroxide; ethylenediamine; pH; complexes; chloride

Keywords: carbon; steel; microstructure; corrosion; XPS; siderite; ferrite; cementite; oxygen; sodium; hydrogen; carbonate; inhibitors
Macias, M., Morales, J., Tirado, J. L. & Valera, C. Effect of crystallinity on the thermal evolution of gamma-Fe2O3. *Thermochimica Acta* **133**, 107-112 (1988). Keywords: iron oxide; maghemite; lepidocrite; goethite; magnetite; BET; DTA; crystallinity

MacKay, A. L. B ferric oxyhydroxide - akaganeite. *Mineralogical Magazine* **33**, 270-280 (1962). Keywords: oxyhydroxide; akaganeite; chloride; fluoride; hydroxide

Maeda, Y., Matsuo, Y., Sugihara, S., Momoshima, N. & Takashima, Y. *Corrosion Science* **33**, 1557-1567 (1992). Keywords: Mossbauer; corrosion; corrosion products; iron; goethite; akaganeite; magnetite; iron oxide; NaCl; pH; acetate; XRD; Cu; Fe; maghemite; lepidocrite; oxides; so2; pyrite; hematite; atmospheres; sulphur dioxide; ferricydrate; steel

Mathias, C., assessment of corrosion measurements in soil samples excavated at a seventeenth century colonial plantation site. IIC. 121-126 (1996). 1. Keywords: polarisation resistance; mechanisms; organics; pH; magnetic; corrosion products; oxides; oxyhydroxide; phosphate; carbon; ferrite; cementite; cracking; corrosion; soil

Mayne, J. E. O. & Turgoose, S. Significance of the redox potential in the inhibition of the corrosion of iron by non-oxidising inhibitors in the pH range 5-13. *British Corrosion Journal*. **10**, (1):44-46 (1975). M. Keywords: redox; potential; corrosion; iron; inhibitors; pH; mechanisms; corrosion inhibitors; oxides; methods; chloride; sulphate; hydroxide; carbonate; oxidation; diffusion; acetate; azelate; benzoate

McCafferty, E., Zettlemoyer, A. C., Adsorption of water vapour on α Fe2O3. 239-254 (1971). 1. M. Keywords: hematite; BET; hydrogen; structure; water; mechanisms

McCawley, J. C., Current research into the corrosion of archaeological iron. International Council Of Museums - Committee for Conservation. (1984), 84.22.25-84.22.27 (1984). 3. M. Keywords: corrosion; iron; chloride; freezing; sulphate; porosity; oxygen; sodium; sodium sulphite; water; sodium hydroxide; hydroxide; magnetite


Mellors, G. W., Cohen, M. & Beck, A. F. A study of the effect of chloride ion on films formed on iron in sodium nitrite solutions. *Journal of the Electrochemical Society* **105**, (6):332-338 (1958). M. Keywords: chloride; iron; sodium; maghemite; lepidocrite; inclusions; potential; oxides; SEM; surface; porosity; cathodic; electrochemistry

Misawa, T., Hashimoto, K. & Shimodaira, S. The mechanism of formation of iron oxide and oxyhydroxides in aqueous solutions at room temperature. *Corrosion Science* **14**, 131-149 (1974). Keywords: mechanisms; iron; oxides; oxyhydroxide; temperature

Misawa, T., Asami, K., Hashimoto, K. & Shimodaira, S. The Mechanism of Atmospheric Rusting and the Protective Amorphous Rust on low Alloy. *Corrosion Science* Pergamon Press. (1974). **14**, 279-289 I18. Keywords: mechanisms; passivation; FTIR; copper; goethite; XRD; phosphorous; lepidocrite; steel; chromium; rust; alloy

Misawa, T., Asami, K., Hashimoto, K. & Shimodaira, S. The mechanism of atmospheric rusting and the protective amorphous rust on low alloy steel. *Corrosion Science* **14**, 279-289 (1974). M. Keywords: mechanisms; rust; alloy; steel; atmospheres; FTIR; oxyhydroxide; corrosion; corrosion products; goethite; lepidocrite; magnetite; akaganeite; marine; XRD; iron; pH

Keywords: goethite; lepidocrite; iron; hydroxide; complexes; potential; pH; salts; XRD; FTIR; water; mechanisms; corrosion; thermodynamics; kinetics


Keywords: mechanisms; steel; goethite; lepidocrite; XRD; magnetite; green rust; FTIR; akaganeite; Cu; rust; alloy


Keywords: oxidation; complexes; FTIR; green rust; rust; mechanisms; pH


Keywords: iron; oxyhydroxide; lepidocrite; water; hematite; crystallinity; ferrihydrate; sulphate; FTIR; DTA; TGA; goethite; surface; Mossbauer; XRD; TEM


Keywords: chloride; cast iron; dissolved oxygen; corrosion; iron; water


Keywords: alloy; methods; DTA; thermomagnetometry; dilatometry; curie temperature; magnetite; magnetic; iron


Keywords: corrosion products; marine; iron; oxycarbonate; oxidation potential; mechanisms; structure; radiation; cementite; corrosion


Keywords: marine; cast iron; pyrrhotite; magnetite; siderite; iron oxycarbonate; iron


Keywords: goethite; gamma iron oxy hydroxide; marine; iron; alkaline sulphite


Keywords: iron; oxyhydroxide; curie temperature; temperature; magnetic; structure; XRD; FTIR; distribution; goethite; geothite; maghemite


Keywords: goethite; akaganeite; lepidocrite; complexes; sulphate; phosphate; benzoate; nitrate; pH; water


Keywords: metastable; Fe; Cu; Ag; magnetoresistivity; thermal analysis; ball mills; binary alloys; x-ray


Keywords: mechanisms; goethite; complexes; soil; sulphate; goethite; iron; iron oxide; oxides; IR; nitrate; atr; pzc


Keywords: iron; marine; magnetite

Keywords: corrosion; chloride; sulphate; sulphuric acid; inhibitors; cathodic; sodium; sodium chloride; nitric acid; hydrogen; steel; copper; anodic inhibition; cathodic inhibition


Keywords: iron; sodium; wrought iron; electrolytic reduction; hydrogen; cast iron; desalination; ebonide; marine


Keywords: mechanisms; oxidation; akaganeite; goethite; rust; green rust; XRD; Mossbauer; Eh


Keywords: alkaline sulphite; iron; methods; desalination; chloride; electrophoresis; intensive washing; formic acid; distilled water; insoluble chloride


Keywords: geothite; hematite; XRD; FTIR


Keywords: potential; electrodes; oxides; corrosion; corrosion potential; mechanisms


Keywords: corrosion; potential; chloride; pitting; electrodes; sulphuric acid; surface; iron


Keywords: soil; chloride; sulphate; pH; redox; corrosion products; distribution


Keywords: geothite; temperature; XRD; FTIR; TGA; DTA; oxalate soluble; Mossbauer; surface area; hematite; aluminium; crystallinity; surface; Fe; water


Keywords: chloride; iron; cast iron; diffusion; mechanisms


Keywords: weeping; mechanisms; akaganeite


Keywords: surface; raman; corrosion; iron; carbonate; potential; bicarbonate; oxidation; silver; lepidocrite; maghemite; geothite; siderite


Keywords: steel; surface; passivation; sulphur dioxide; sodium chloride; iron sulphate; iron chloride; rust

Keywords: resistivity; pH; oxygen; redox; salts; electrochemical sensor; Eh; radiography; Electrical Impedance Spectroscopy

Keywords: akaganeite; structure; corrosion; iron; hematite; chloride; XRD; TGA; neutron diffraction; MS

Keywords: rust; iron; cleaning; sodium; clay; hydroxide; ammonia; pH; mechanisms

Keywords: mechanisms; oxygen; rust; lepidocrite; oxides; surface; diffusion; porosity; potential; magnetite

Keywords: oxidation; mechanisms; pH; akaganeite; lepidocrite; geothite; pO

Keywords: temperature; corrosion

Keywords: structure; iron; mechanisms; oxidation; pore solution; akaganeite; chloride; pH; corrosion products; oxidation potential; washing; storage; wrought iron; cast iron

Keywords: iron; cast iron; pH; potential; marine; corrosion products; mechanisms; sodium hydroxide; corrosion; hydrogen; cathodic; storage; chloride; sodium; hydroxide

Keywords: iron; mechanisms; chloride; akaganeite

Keywords: iron; mechanisms; chloride; water; corrosion products

Keywords: coatings; inhibitors; electrochemical measurement; impregnation

Keywords: hydrogen; iron; steel; cast iron; structure; magnetite; geothite; cementite; corrosion; corrosion products

Keywords: methods; iron; silver; copper; bronze; incrustation; corrosion; morphology; chlorine; agglomerate layer; hydrogen; ammonia; plasma

Keywords : corrosion; chloride; sulphate; bicarbonate; pH; corrosion products; characterisation system; degree of rusting; mechanisms; buffering capacity


Keywords : soil; mechanisms; phosphate; pH; humus; ferrihydrate


Keywords : soil; mechanisms; phosphate; pH; humus; ferrihydrate


Keywords : corrosion; iron; cathodic; corrosion products; oxygen; sulphur dioxide; chloride; temperature; sulphate; inhibitors; vapour phase inhibitors


Keywords : thermomagnetometry; methods; temperature; carbonate; siderite; sulphides; pyrite; pyrrhotite; oxides; hematite; maghemite; magnetite; titanium; chromium


Keywords : thermomagnetometry; curie temperature; temperature; weight; maghemite; corrosion


Keywords : chloride; volume; RH; sodium; carbonate; weight; iron; washing


Keywords : lithium hydroxide; sodium hydroxide; volume; temperature; boiling; carbonate; inhibitors; mechanisms; hydroxide; sodium


Keywords : corrosion; surface; salts; NaCl; dew


Keywords : corrosion; Mossbauer; XRD; SEM; quenched limewash; iron oxide; magnetite


Keywords : corrosion; goethite; lepidocrite; magnetite; iron; hydroxide; akaganeite; chloride