



The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin

Ebrahim Akbarzadeh

[Download now](#)

[Click here](#) if your download doesn't start automatically

The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin

Ebrahim Akbarzadeh

The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin Ebrahim Akbarzadeh

Lignin is one of the most abundant biopolymers on the earth. The pulping processes produce huge amounts of lignin from its lignocellulosic waste. One of the applications of lignin could be corrosion inhibitor. Initial corrosion studies on native soda lignin and Kraft lignin without any treatments have shown good inhibition on mild steel in 3.5% of sodium chloride solutions. The inhibitive efficiencies increased with the increase in concentrations. Both lignins can adsorb onto the metal surface physically and then react chemically with iron ions to form a protective film that hinders further corroding process. Electrochemical tests were performed on three lignin monomers namely p-Cumaric acid, Ferulic acid and Hydroxybenzaldehyde on mild steel. A full factorial method was used to study the main and interaction effects on these monomers. Ferric-lignin complex formation on steel surface as a protective layer was found to be the main reaction that gives good thermal stability. The adequate correlation between ferric-lignin formation and good inhibition efficiency resulted from the corrosion studies show that lignin can be a potential inhibitor on steel surface.

 [Download The Lignin of Oil Palm as Green Corrosion Inhibitor of ...pdf](#)

 [Read Online The Lignin of Oil Palm as Green Corrosion Inhibitor o ...pdf](#)

Download and Read Free Online The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin Ebrahim Akbarzadeh

Download and Read Free Online The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin Ebrahim Akbarzadeh

From reader reviews:

Louise Lewis:

Do you have favorite book? In case you have, what is your favorite's book? Guide is very important thing for us to know everything in the world. Each publication has different aim or even goal; it means that e-book has different type. Some people sense enjoy to spend their time for you to read a book. They may be reading whatever they take because their hobby is usually reading a book. What about the person who don't like examining a book? Sometime, particular person feel need book whenever they found difficult problem or perhaps exercise. Well, probably you should have this The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin.

Katherine Khan:

Have you spare time for just a day? What do you do when you have a lot more or little spare time? Yeah, you can choose the suitable activity regarding spend your time. Any person spent their particular spare time to take a move, shopping, or went to typically the Mall. How about open as well as read a book titled The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin? Maybe it is to become best activity for you. You understand beside you can spend your time with the favorite's book, you can more intelligent than before. Do you agree with their opinion or you have various other opinion?

Bruce Hardin:

Do you one among people who can't read enjoyable if the sentence chained within the straightway, hold on guys this aren't like that. This The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin book is readable by simply you who hate the perfect word style. You will find the data here are arrange for enjoyable studying experience without leaving actually decrease the knowledge that want to provide to you. The writer connected with The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin content conveys thinking easily to understand by a lot of people. The printed and e-book are not different in the content but it just different such as it. So , do you even now thinking The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin is not loveable to be your top record reading book?

Patrick Austin:

Many people spending their time by playing outside having friends, fun activity together with family or just watching TV the whole day. You can have new activity to spend your whole day by looking at a book. Ugh, do you consider reading a book can really hard because you have to use the book everywhere? It alright you can have the e-book, getting everywhere you want in your Mobile phone. Like The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin which is

keeping the e-book version. So , try out this book? Let's see.

**Download and Read Online The Lignin of Oil Palm as Green
Corrosion Inhibitor of Steel: A Comprehensive Study on Native
Soda and Kraft Lignin Ebrahim Akbarzadeh #DB23OJ7XPMN**

Read The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin by Ebrahim Akbarzadeh for online ebook

The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin by Ebrahim Akbarzadeh Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin by Ebrahim Akbarzadeh books to read online.

Online The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin by Ebrahim Akbarzadeh ebook PDF download

The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin by Ebrahim Akbarzadeh Doc

The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin by Ebrahim Akbarzadeh Mobipocket

The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin by Ebrahim Akbarzadeh EPub

The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin by Ebrahim Akbarzadeh Ebook online

The Lignin of Oil Palm as Green Corrosion Inhibitor of Steel: A Comprehensive Study on Native Soda and Kraft Lignin by Ebrahim Akbarzadeh Ebook PDF