



**TAKHRIJ AND SYARAH HADITH OF CHEMISTRY: RUSTY IRON IN HADITH
PERSPECTIVE**

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Abstract

The purpose of this study is to discuss the hadith of the Prophet Muhammad Saw. about iron rusting. This research method is qualitative through the takhrij and sharah hadith approaches with chemical analysis. The results and discussion of this research are about the rusting of iron and also how to remove it, one of which is by means of electroplating. In addition, several uses of iron were also found, including as an ingredient for making household utensils, jewelry or dowry, and also as a medicinal tool. This study concludes that the use of iron and its maintenance has been recommended by the Prophet Muhammad Saw. based on takhrij and syarah hadith. This research recommends developing iron through chemistry.

Keywords: Chemistry, Hadith, Iron, Syarah, Takhrij

Introduction

Iron is a metal that is very active and readily reacts with oxygen in the air, resulting in ferrous rust ($\text{Fe}_2\text{O}_3 \cdot x\text{H}_2\text{O}$). The reaction between metal and oxygen can cause the object to rust. When viewed from a scientific point of view, corrosion (corrosion) of metals results in a decrease in quality and material loss. For this reason, metal plating is necessary so that the metal is protected from corrosion and has a long enough durability. One of the efforts to protect metals from corrosion is the application of the principle of electroplating. Electroplating is a method of plating metal using an electric current (Salma 2016). In electroplating, metals that are more corrosion resistant (not easy to rust) are used. Electrochemically, the metal used is a metal that has a smaller reduction potential than the metal it is coating on. Copper metal has a smaller reduction potential than iron, so that it is possible for copper to coat the iron so that it does not rust.

There is a hadith of the Prophet with regard to iron rust in Musnad Imam Bukhari Number 1738:

قَالَ يَقُولُ عَنْهُ اللَّهُ رَضِيَ هُرَيْرَةُ أَبَا سَمِعْتُ يَقُولُ يَسَارَ بْنَ سَعِيدِ الْحَبَابِ أَبَا سَمِعْتُ قَالَ سَعِيدُ بْنُ يَحْيَى عَنْ مَالِكٍ أَخْبَرَنَا يُوسُفَ بْنَ اللَّهِ عَبْدُ حَدَّثَنَا الْحَدِيدِ حَبْتٌ الْكَبِيرُ يَنْفِي كَمَا النَّاسَ تَنْفِي الْمَدِينَةَ وَيَوْهُ يَثْرِبُ يَقُولُونَ الْفَرَى تَأْكُلُ بِقَرِيَةِ أَمْرَتْ وَسَلَّمْ عَلَيْهِ اللَّهُ صَلَّى اللَّهُ رَسُولُ



Having told us' Abdullah bin Yusuf told us Malik from Yahya bin Sa'id said, I heard Abu Al-Hubab Sa'id bin Yasar say; I heard Abu Hurairah radhiallahu'anhu say, Rasulullah ﷺ said, "I was ordered (to migrate) to a place where the appeal is more dominant than other places, namely the city of Medina, this city cleanses people (evil ones) as a tool for wrought iron. which cleans iron rust "(HR. Bukhari No. 1738).

Based on the above description, a research formula is compiled, namely the formulation of the problem, research questions, and research objectives (Darmalaksana 2020a). The formulation of this research problem is found in hadith of the Prophet SAW. about iron rusting. The research question is how the hadith of the Prophet Muhammad SAW. about iron rusting. The purpose of this research is to discuss the hadith of the Prophet Muhammad SAW. about iron rusting.

Research Methods

This research method is qualitative through literature and field studies (Darmalaksana 2020b). Meanwhile, the approach applied is takhrij and syarah hadith (Soetari 2015). The interpretation in this study used an approach with chemical analysis (Sudiarti, Delilah, and Aziz 2018).

In general, there are two stages of research on hadith, namely takhrij and syarah. Takhrij is the process of extracting a hadith from a hadith book to examine its validity, while sharah is an explanation of the hadith text with a certain analysis (Soetari 2015). The field of chemistry itself, as a means of interpretation in this research, is the science that studies the structure of matter, the composition of matter, the properties and changes of matter that occur when a chemical substance interacts with others, as well as the energy involved in its changes (Hernani 2014).

Results and Discussion

First, a search was carried out through the hadith application regarding the key word "iron" until the hadith was found in the book Musnad Imam Bukhari Number 1738, as presented earlier.

Table 1. List of Rawi Sanad

No.	Rawi Sanad	Birth/Death		State	Kunyah	Scholars' Comments		Circles
		B	D			-	+	
1	Abdur Rahman bin Shakhr		57 H.	Madinah	Abu Hurairah		Shahabat	Shahabat
2	Sa'id bin Yasar		117 H.	Madinah	Abu Al Habbab		Tsiqah	Tabi'in Middle Circles
3	Yahya bin Sa'id bin Qais		144 H.	Madinah	Abu Sa'id		-Tsiqah -Most tsabat -Tsiqah ma'mun -Tsiqah tsabat -Imam	Tabi'in Ordinary Circle
4	Malik bin Anas bin Malik bin Abi Amir		179 H.	Madinah	Abu 'Abdullah		-Tsiqah -Tsiqah ma'mun	Tabi'ut Tabi'in among the erderly
5	Abdullah bin Yusuf		218 H.	Maru	Abu Muhammad		-Tsiqah -Hafizh -Mentioned in'ats tsiqaat	Tabi'ul Atba' among the erderly
6	Imam Bukhari	194 H.	256 H.	Bukhara	Amirul Mukminin fil Hadits		Imam al-hadits	Mudawin



Table 1 is a list of the rawi and sanad under study. Rawi is the narrator of hadith while sanad is the chain of narrators from companionship to mudawin, namely scholars who record hadiths in the hadith book (Soetari 1994). According to the science of hadith, the requirement for shahih hadith is that rawi must be positive according to the comments of the scholars. If there is a comment from a scholar who gives a negative assessment to one of the narrators in the sanad lane, then the hadith is a hadith dhaif (Darmalaksana 2020d). Hadith shahih is a strong hadith while a hadith dhaif is a weak hadith (Soetari 1994). Requirements for authentic hadith must also be continued. If the hadith sanad is broken, then the hadith is a dhaif hadith. The proof of continuity is meeting between teacher and student. If there is no objective evidence, the encounter between teacher and student can be seen from birth and death. If there is no data on births and deaths, it is predicted that the average age of scholars is around 70-90 years. The meeting of teachers and students can also be seen from the narrator's life journey. If the teacher and student are in the same place, it is predicted that the teacher and student will meet (Darmalaksana 2020d).

The quality of this hadith is shahih. Because, from the side of the narrator, there were no comments from scholars who gave negative assessments. Also from the sanad side, it is connected from friend to homecoming. Basically the science of hadith has another parameter in providing reinforcement to hadith. Among other things, hadiths are called mut Worries in a very popular sense if the hadiths being researched are scattered in several hadith books (Soetari 2015). The distribution of this hadith acts as martyr and mutabi. Shahid is another hadith of a kind whereas mutabi is another sanad (Darmalaksana 2020d). The rest, as far as hadith is the virtue of Islamic practice, it can be argued even though its status is dhaif (Darmalaksana, Pahala, and Soetari 2017).

The scholars have given syarah, namely an explanation of the content and meaning of the hadith (Darmalaksana 2020c). According to the view of the scholars, Imam Bukhari made the chapter titles as the hadith lafazh. The factor which indicates that these are evil people is clear from the tasybih (likeness) mentioned in the hadith. As for the meaning of the history which uses the word tanqi (cleanse) instead of the word tanfi (to remove) is human in general (Salma 2016).

Hadith says that “Medina bring out the bad” **أَمْرٌ شَيْفَرِيَّةٌ** (I was ordered to a village), that is, I (Rasullah Saw.,) was ordered by my Lord to migrate to a village, or I was ordered to live in it. The first interpretation is understood on the basis that he said it in Mecca, while the second interpretation is understood that he said it while in Medina. The purpose of the order was to eat villages. Namely, dominating or defeating other villages (Salma 2016). This hadith explains that there will be no doomsday until Madinah expels bad people like a smoker's fire blower peeling off or lifting iron rust from iron. This explains the uniqueness of the city of Medina, as a place of hijrah for the Prophet Muhammad, and as a city protected by Allah its holiness. So that people whose hearts are dirty will not be tolerated (Salma 2016).

This hadith can also be explained in terms of chemistry, which in principle informs about rusting iron and how to get rid of it. Blacksmiths in their attempt to distinguish between good and bad iron was to see whether the iron rusted or not. For rusty iron, the blacksmith will burn the iron until it boils like liquid, so that the rust on the iron will be lifted and the quality of the iron will improve (Salma 2016).



Rusting (corrosion) is basically the reaction of metals into ions on metal surfaces in direct contact with aqueous and oxygenated environments (Utomo 2015). The reaction between metal and oxygen can cause corrosion. The rust that is formed can accelerate the subsequent rusting process. Therefore, rust is also called an autocatalyst (Utomo 2015). Rusty iron is brittle, dissolves easily, and mixes with other metals, and is poisonous which of course can be dangerous (Utomo 2015). As for efforts to prevent damage to iron caused by corrosion, namely coating on metal surfaces, cathodic protection, adding corrosion inhibitors and others (Sudiarti, Delilah, and Aziz 2018). However, in general, electroplating is often used (coating a metal surface using an electric current).

Iron has many benefits in human life, including it can be used as a household item, can be used as an object of jewelry or dowry, and also as a medicinal tool. In modern times like today, iron is also widely used as construction and mechanical equipment as well as equipment for the medicine and food industry.

Conclusion

Iron is recognized as a metal element that cannot be separated from human life. Since hundreds of years ago, the hadith of the Prophet. has informed the phenomenon of iron rusting and how to get rid of it, as well as informing the benefits of iron in life. Based on the hadith takhrij, the quality of this hadith is valid because the traditions of the hadith are connected from friendship to homecoming. According to the syarah hadith, iron is a metal that is very active and easily reacts with oxygen in the air. In modern times, iron has been widely used as construction and mechanical equipment as well as equipment for the medicine and food industry. This research is expected to have benefits for the development of iron, especially in the field of chemistry. This research has limitations, namely simple takhrij and syarah hadith, so it needs more adequate follow-up research through chemistry. This study recommends developing iron through the chemical field beyond its effectiveness as a household tool.

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