

Problems and Future Prospects of Biodegradable Plastics

1. Motivation behind Research Paper

The earth is crying now. Do you hear the cry of the earth? The reason I started to research this topic is that I learned about Borneo when I was a first grader. Borneo has fallen into a crisis where animals have become extinct. So, I want to protect the ecosystem. Also, I would like to develop new materials instead of plastic in the future.

2. Introduction

What do you think of when you hear about endangered animals falling into crisis? A major cause of animals becoming endangered is deforestation. The rise in the human population also contributes to this problem. The truth is that there are many causes for species coming close to extinction. All the causes relate to humans. And the biggest cause of changes in ecosystems is global warming. People should not avert their attention from the problems that animals face. Around the world, a lot of manufacturing and production is done. Factors that change the environment the most are the use of plastic. A new method of developing sustainable materials needs to be developed.

3. Results and Analysis

Reducing plastic is a difficult task. Looking at the proportion of plastic waste, the most common is wrapping paper used for sweets. This is the starting point for reducing the overall waste that is plastic. After this, plastic bottle labels are the second most common type of plastic waste. The merits of plastic bottle labels is that they are light and strong. Also, if we don't use plastic bottle labels, there will be no place to display recycling and ingredient information. A solution to this problem is to set up QR codes in stores. There are some merits to getting rid of plastic bottle labels. The reduction in plastic may make products cheaper and there is less trash to separate. But, the best way to reduce carbon dioxide is by developing new materials.

A study conducted by Ryunosuke Hunabashi explained the alternatives to plastic production. The study focuses on biodegradable plastics and biomass plastics. Biodegradable plastics can decompose water and carbon dioxide. However, there are two points that should be considered before producing these new materials. First, biodegradable plastics and biomass plastics don't match. In other words, the purpose of biomass plastic is to use things for the environment and it does not have a biodegradable function. Second, biodegradable plastics and conventional plastics can't mix in the recycling process because of their composition. Also, conventional plastics have excellent physical stability while biodegradable plastics have low physical stability. These issues need to be addressed and researched in the future.

4. Conclusion and Future Problems

Can we make a carbon-circulating society? Biodegradable plastics are decomposed carbon monoxide and water. Therefore, we have to develop biodegradable plastics derived from biomass. In these areas, Japan is leading so we should deal with the future problem. Developing biodegradable plastics connects to solving the problem of plastics but we can't actually solve the problem of plastic. So, I think it is impossible for us to solve this problem. However we should work on this problem because the cause of global warming is people.

5. Reflection

I have known about the problem of plastics but I didn't try to do anything about it. From this research, I would like to continue studying biodegradable plastics to solve the plastics problem. Also, I would like to tell the plastics problem to everyone in the world.

6. Work Cited

"Biodegradable plastic's task and future outlook." Ryosuke Funabashi. 2019.April.19.