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PURIFIED WATER

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***Abstract*—The motive is to prepare and design activated carbon filter for water filtration. Thus, to analyze filtered water from activated carbon water filtration system. As known, from burning coconut shell can produce activated carbon and it can be a filtration material that can be used as a filter. Activated carbon can be produced from several source of material such as coconuts, nutshell, coal, peat, and wood. In this study, coconut shells were used to produce activated carbon. Activated carbon water filtration is mainly used for several treatment purpose. Activated carbon is used to remove chlorine from the water. This process called dichlorification and it will absorb the chlorine. Reactivated filters should only be used in waste water treatment applications. Advantages of using AC is easy to install and maintain, efficient to remove certain organics. carbon or known as AC, are a very useful group of adsorbents, with capable for selectively adsorbing thousands of organic. Such as coconut shell, wood chip, paddy husk, and palm oil fruits. Because it is easy to get, eco-friendly or environmental friendly, biodegradable, renewable source of carbon and easy to manufacture. Even coconut shell is a purer form of carbon compared to coal and wood filters. Moreover, this activated carbon from coconut shell can remove chlorine, ammonia, objectionable tastes and odors found in tap water. It also reduce hydrogen sulfide and other contaminants. The major uses of activated carbon is for, indoor air decontamination, food industry, chemical and smelting industry, and for drinking water treatment.**

Keywords*—dichlorification, chlorine