



**PERFORMANCE OF ULTRASONICATED MEMBRANE ANAEROBIC (UMAS)
UNDER STEADY STATE CONDITIONS****ALTOUM EH* AND NOUR AH**

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*Corresponding Author: E Mail: egbalaltom@hotmail.com**ABSTRACT**

In today's urbanized society, many commercial and industries releasing organic wastes, sewages and fertilizers contain nutrients such as nitrates, sulphates and phosphates to stream, rivers, lakes and oceans. This can lead to severe water pollution when an overwhelming amount of waste accommodates in natural ecosystem. Consequently, when the wastes are not destroyed as fast as produce they make it unfavourable to humans and many other organisms. Hence it is very important to prevent the pollution of vital and limited resources of water by providing adequate treatment of liquid waste emanating from domestic and industrial sources. Traditional methods for sewage sludge treatment have both economical and environmental disadvantages. In this study Ultrasonicated Membrane Anaerobic System (UMAS) used for treating sewage sludge and advantages of this method is reduces the treatment cost and reduction of solid sludge as well as in increase the production of the biogas.

Keywords: Ultrasonicated, Membrane, Anaerobic, Organic Wastes**INTRODUCTION**

Sewage treatment is the process of removing contaminants from wastewater and household sewage, both runoff (effluents) and domestic. It includes physical, chemical, and biological processes to remove physical, chemical and biological contaminants [1]. Its objective is to produce an environmentally safe fluid waste stream (or treated effluent) and a solid waste (or treated

sludge) suitable for disposal or reuse (usually as farm fertilizer). Using advanced technology it is now possible to re-use sewage effluent for drinking water, although Singapore is the only country to implement such technology on a production scale in its production of newater [2].

Sewage is generated by residential, institutional, and commercial and industrial establishments. It includes household waste