

# The Effect of MRET Activated Water on Microbiological Culture *Escherichia coli* K-12 and on Complex Microbiological Associations

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## Inhibition of *E.coli* bacteria growth in aerobic environment

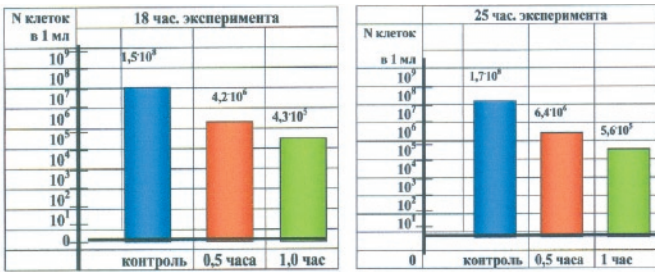


Fig 4: The inhibition of *E.coli* growth in aerobic environment: 303 times ( $t_{act}=1.0$ hour) and 27 times ( $t_{act}=0.5$ hour) after 25 hours of experiment (blue color – control, red – 30 minutes and green – 60 minutes MRET-activated medium).

K – Control; 0.5 – 0.5 hour MRET-activated water;  
1.0 – 1 hour MRET-activated water;  $K_{ref}$  – reference to sterility

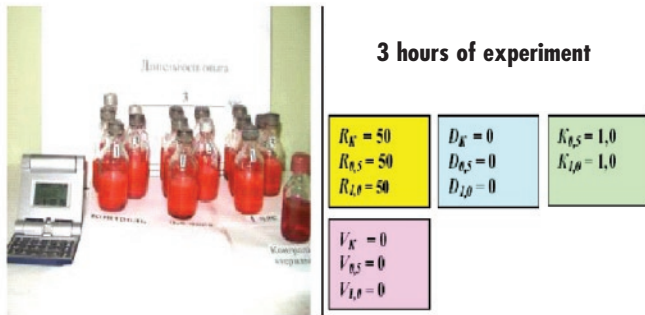
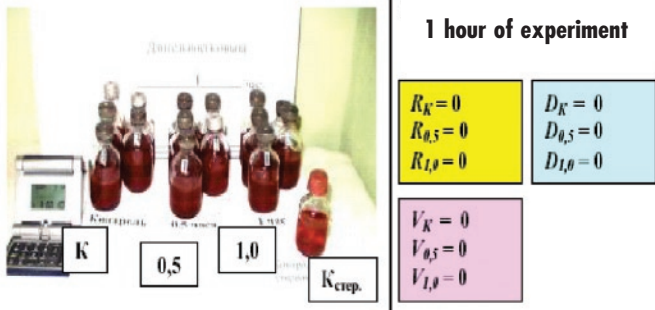
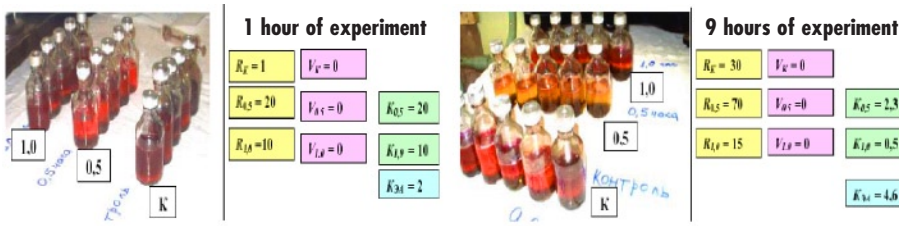


Fig 9: Comparative test on metabolic (reductant) activity of *E.coli* (control samples, 30 and 60 minutes MRET- activated water) in anaerobic environment: R – reductant activity (in Control, 0.5 hour and 1.0 hour MRET-activated water), K – relative reductant activity, D – optical density, V – gas volume in the bottles.



1.0 – 1 hour MRET-activated water; 0.5 – 0.5 hour MRET-activated water; K – Control

## Relative Reductant Activity of *E.coli* bacteria in aerobic environment

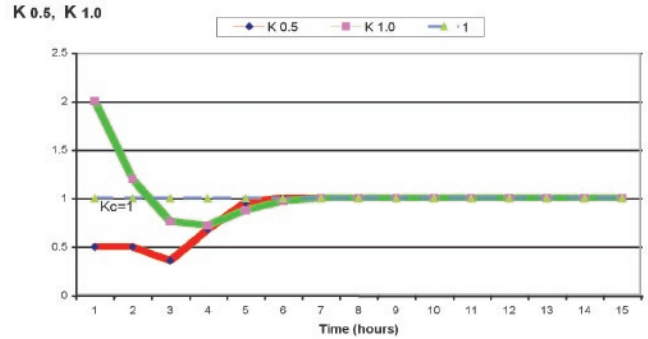


Fig 8: Relative Reductant Activity of *E.coli* in MRET water activated for 0.5 hour ( $K_{0.5}=R_{0.5}/RC$  – red color) and for 1.0 hour ( $K_{1.0}=R_{1.0}/RC$  – green color) compare to control non-activated samples ( $K_C=1$  – blue color) in aerobic environment.

## Reductant Activity of *E.coli* bacteria in aerobic environment

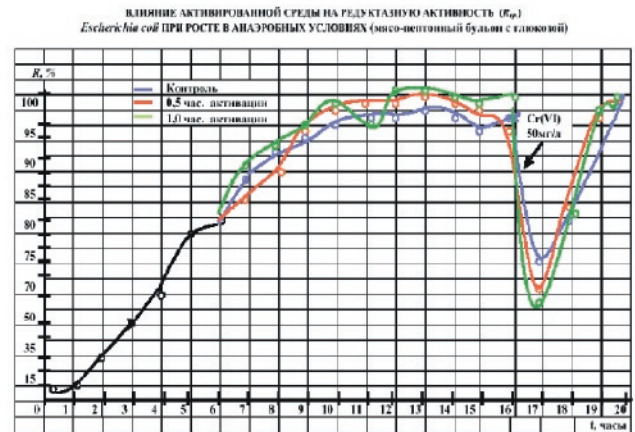
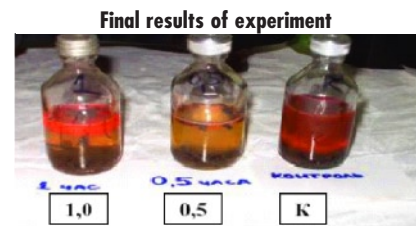


Fig 10: Reductant Activity of *E.coli* in 30 and 60 minutes MRET-activated water and in Control non-activated samples ( $R_{0.5}$  – red color,  $R_{1.0}$  – green color,  $R_C$  – blue color) in anaerobic environment.



1.0 – 1 hour MRET-activated water;  
0.5 – 0.5 hour MRET-activated water; K – Control

Fig 11: Comparative test on metabolic (reductant) activity of microbial associations (1.0 hour and 0.5 hour MRET- activated water and Control samples) in anaerobic environment: R – reductant activity (in Control, 0.5 hour and 1.0 hour MRET-activated water), K – relative reductant activity, V – gas volume in the bottles.