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 \((t_{act}=1.0\text{hour})\) and 27 times \((t_{act}=0.5\text{hour})\) 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; \(K_{CTP}\) — reference to sterility

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

Relative Reductant Activity of E. coli bacteria in aerobic environment

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.

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.

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.