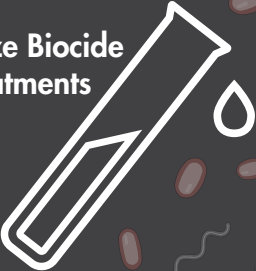


On-line methods for monitoring biofilm activity on metallic surfaces provide the system operator with the necessary information to control biofilms effectively and economically by initiating mitigating actions before significant damage is incurred. Of equal importance, an on-line monitor allows optimization of the concentrations and addition frequencies of water treatment chemicals and adjustment of maintenance schedules, thus avoiding over-treatment of the water and reducing operating costs. The **BIoGEORGE™ BG4 Biofilm Growth Detector System** utilizes electrochemical methods to provide these on-line functions. A probe electrode stack,

comprised of a series of stainless steel or titanium discs, is subjected to intermittent polarization to a pre-set DC potential. Biofilm activity on surfaces is detected by an increase in the **applied electrical current** required to achieve that potential. As a biofilm becomes established, the biofilm may also generate a current during times when the applied potential is off. The measured applied and generated **electrical currents** are proportional to **biofilm activity**.

# ON-LINE BIOFILM MONITORING

Optimize Biocide  
Treatments



Biofilm Detection Probe

Electrical currents measured indicate biofilm activity

Biofilm activity  
on surfaces



BIoGEORGE™ BG4  
Biofilm Growth  
Detector System



**BIoGEORGE™**  
**BIOFILM GROWTH DETECTOR**

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