Detoxifying Chlorooxides by Respiration in *Dechloromonas aromatica* RCB

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The chlorooxides are primarily anthropogenic substances that have recently become widespread environmental contaminants. These substances pose a variety of risks to human and environmental health. At the same time, nature has evolved to take advantage of the oxidizing power of ClO_4^-, ClO_3^-, and ClO_2^-; all were recently discovered to serve as respiratory substrates for certain bacteria. The molecular details of this novel respiratory pathway are not well known. Here we present initial progress toward our goal of cloning, expressing, and characterizing the chlorooxide-detoxifying enzymes from *Dechloromonas aromatica* RCB.