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Isolation and life cycle characterization of lytic viruses infecting heterotrophic bacteria and cyanobacteria

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Mathias Middelboe, Amy M. Chan, and Sif K. Bertelsen

VERVE Net

Suttle Laboratory of Mar...



Amy Chan

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Keywords: life cycle characterization of lytic virus, purification of bacteriophage, lytic virus, phage isolation, bacteriophage, cyanobacteria, infecting heterotrophic bacteria, aerobic heterotrophic bacteria, cyanobacteria this collection, viral genetic composition, heterotrophic bacteria, bacteria, cyanophage, methods for life cycle characterization, different isolation procedure, virus, enriched liquid culture, isolation procedure, infecting such host, purification, methodological approaches for isolation, addition to the isolation procedure, life cycle characterization, limitations of different isolation procedure

Abstract

This collection presents some of the most widely used methodological approaches for isolation and purification of bacteriophages and cyanophages, the first step in detailed studies of virus–host interactions and viral genetic composition, and discusses the applications and limitations of different isolation procedures. Most work on phage isolation has been carried out with aerobic heterotrophic bacteria and cyanobacteria, culturable both on agar plates and in enriched liquid cultures. The procedures presented here are limited to lytic viruses infecting such hosts. In addition to the isolation procedures, methods for life cycle characterization (one-step growth experiments) of bacteriophages and cyanophages are described.



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