

เรื่องที่นำผลงานไปอ้างอิง

6 **Biodegradable Polyhydroxyalkanoates as Advanced Antimicrobial Biomaterials: A Review** 0 References

He, S; Fang, LT; [...]; Zhang, ZW
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Polyhydroxyalkanoates (PHA), a class of biodegradable polyesters synthesized by microorganisms, have emerged as a key platform for advanced antimicrobial biomedicine. Distinguished by their exceptional biocompatibility, tunable degradation kinetics and versatile material properties, PHA offer a sustainable, functional alternative to conventional polymers.

[Full Text at Publisher](#)

^ [Cited publications \(2\)](#)

[Engineering of \$\beta\$ -oxidation pathway to tailor polyhydroxyalkanoate \(PHA\) production in *Bacillus thermoamylovorans*](#)

[Bio-based modification of polyhydroxyalkanoates \(PHA\) towards increased antimicrobial activities and reduced cytotoxicity](#)

ผลงานวิจัยของกนกพร

จำนวน 2 เรื่อง

Web of Science แจ้งว่ามีผลงานวิจัยเรื่อง “Biodegradable polyhydroxyalkanoates as advanced antimicrobial biomaterials: a review” ได้ citation งานของกนกพร สังขรักษ์ จำนวน 2 บทความ ได้แก่

1. ชื่องานวิจัย “Engineering of β -oxidation pathway to tailor polyhydroxyalkanoate (PHA) production in *Bacillus thermoamylovorans*”
2. ชื่องานวิจัย “Bio-based modification of polyhydroxyalkanoates (PHA) towards increased antimicrobial activities and reduced cytotoxicity”

เรื่องที่น่าสนใจไปอ้างอิง

Biodegradable Polyhydroxyalkanoates as Advanced Antimicrobial Biomaterials: A Review

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Abstract Polyhydroxyalkanoates (PHA) biomaterials, have emerged as a key platform for advanced biomedical applications. Their tunable degradation kinetics and versatile material properties, PHA offer a sustainable, functional alternative to conventional polymers. Furthermore, specific PHA materials exhibit inherent antimicrobial properties, opening new avenues for the developing eco-efficient medical materials. This review systematically outlines the multifaceted antibacterial mechanisms of PHA, including their intrinsic structure-activity relationships, the bioactive roles of their degradation products, and their effectiveness as carriers for engineered antimicrobial agents. Recent advances in PHA-based applications are also critically summarized, with a focus on wound dressings, neural conduits, orthopedical implants, and targeted drug delivery systems. The therapeutic

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