Phonon

Jinho Bae

Ocean System Engineering

Ocean Information System Group

Introduction

k = 6π/6a   λ = 2.00a   ω_k = 2.00ω

k = 5π/6a   λ = 2.40a   ω_k = 1.93ω

k = 4π/6a   λ = 3.00a   ω_k = 1.73ω

k = 3π/6a   λ = 4.00a   ω_k = 1.41ω

k = 2π/6a   λ = 6.00a   ω_k = 1.00ω

k = 1π/6a   λ = 12.00a   ω_k = 0.52ω

https://en.wikipedia.org/wiki/Phonon

YouTube

https://www.youtube.com/watch?v=6qgIiyKKgvQ

https://www.youtube.com/watch?v=gxfAV7W2ZFw

https://www.youtube.com/watch?v=9joLYfayee8

Conclusion

- Phonon energy: vibration can make a shooting drop.

- **Check points?**