

레이저 기반 자동차 계측

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유지형

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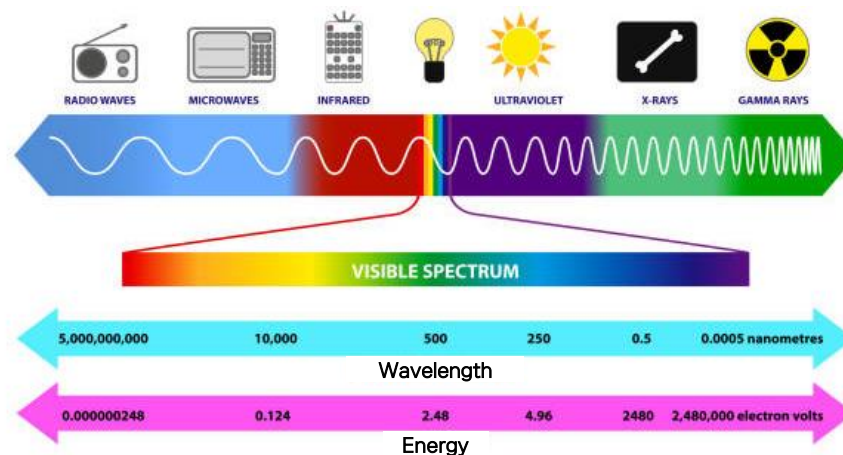
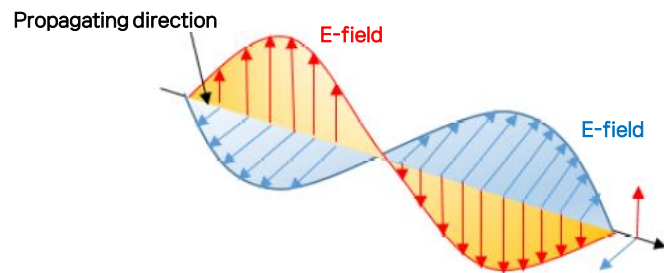
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01

광-물질 상호작용

Photons

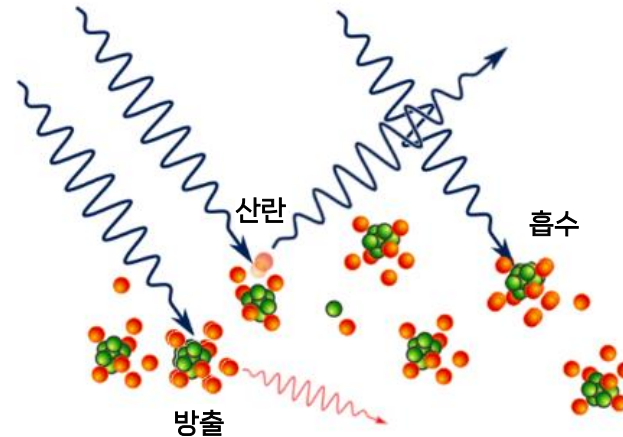
- Massless quantum of the electromagnetic field
- Force carrier for the electromagnetic force



01. 빛-물질 상호작용

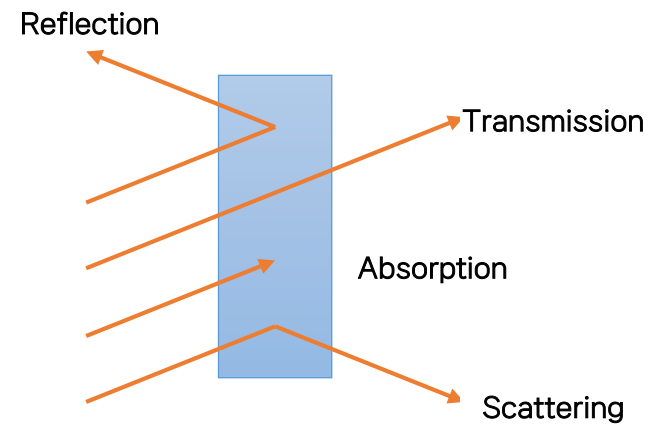
Interactions

- Absorption (흡수)
- Emission (방출)
- Scatter(산란)



Light properties

- Energy
- Momentum
- Intensity
- Polarization



Benefits

- Speed: Nearly instantaneous optical interactions
- Specificity: Accurate & precise measurements
- Non-invasive: Flowfield is not affected
- Versatility: Probe multiple parameters with one setup

Considerations

- Cost
- Contamination
- Maintenance
- Availability

02

배터리 온도 분포 감지

03

모터 영구자석 온도 감지

04

배기 가스 농도 OBD 감지

Q&A

궁금하신 점 질문 바랍니다.



Optical Sensing & Thermal Analysis Research Group

We are part of the Automotive Engineering
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