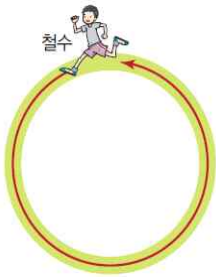


장동호의 물리 I 복기노트

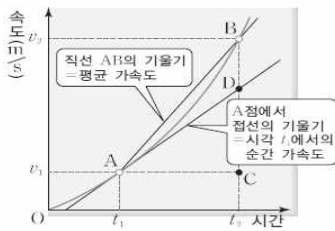


S T A R T ➔

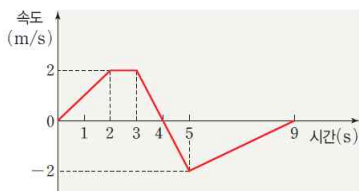
[1] 이동거리와 변위



[2] 가속도 운동



[3] v-t 그래프 해석



[1] 힘



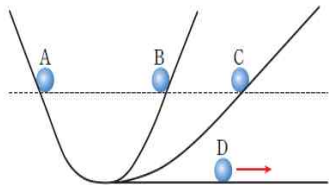
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[2] 관성의 법칙



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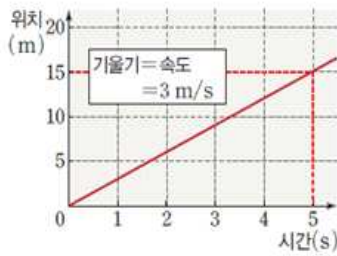
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[3] 등속도 운동



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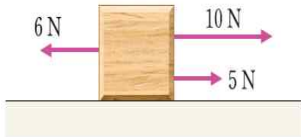
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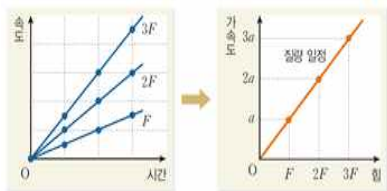
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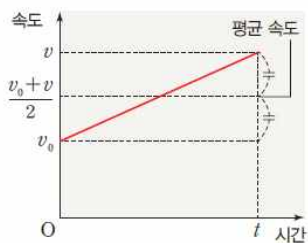
[1] 가속도의 법칙



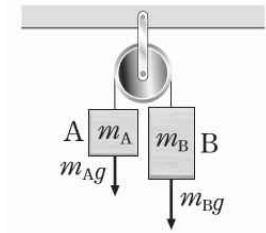
[2] 힘과 가속도, 힘과 질량의 관계



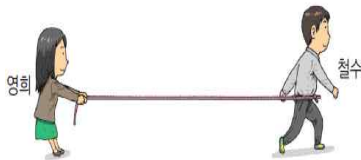
[3] 등가속도 운동



[1] 연결된 물체에서의 운동 방정식



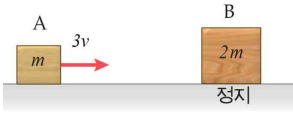
[2] 작용-반작용의 법칙



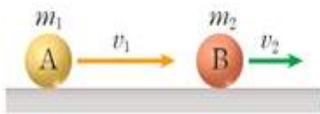
[3] 작용-반작용과 힘의 평형의 비교



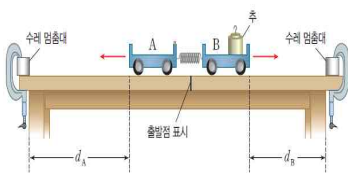
[1] 운동량



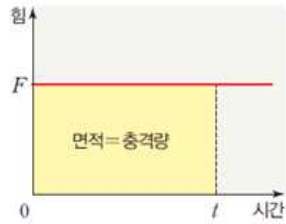
[2] 운동량 보존 법칙



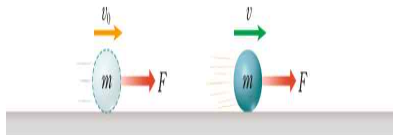
[3] 운동량 보존 법칙 실험



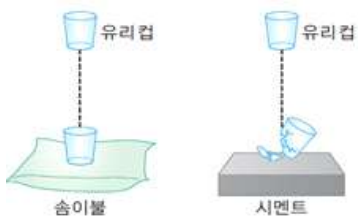
[1] 충격량



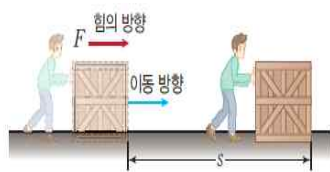
[2] 운동량과 충격량의 관계



[3] 충격력과 충돌시간



[1] 일



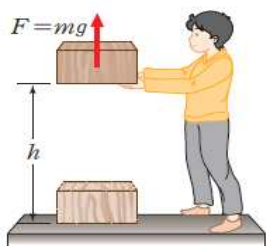
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[2] 일과 중력 퍼텐셜 에너지



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[3] 일과 운동 에너지



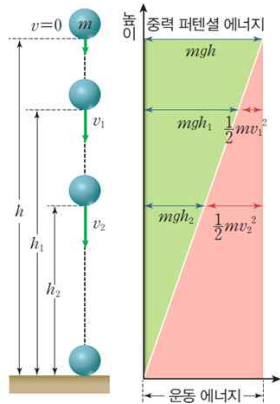
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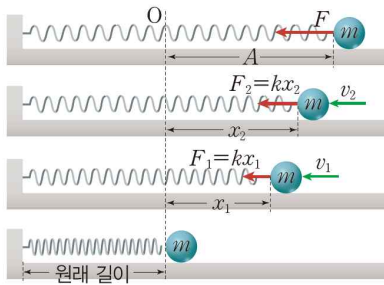
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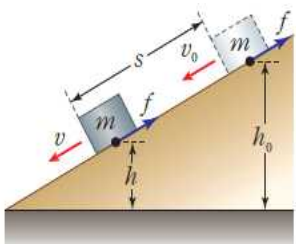
[1] 중력에 의한 물체의 역학적 에너지 보존



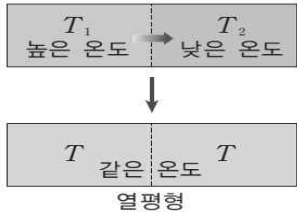
[2] 탄성력에 의한 물체의 역학적 에너지 보존



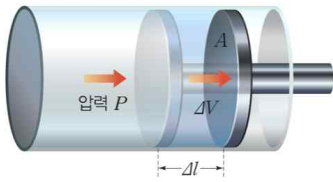
[3] 역학적 에너지가 보존되지 않는 운동



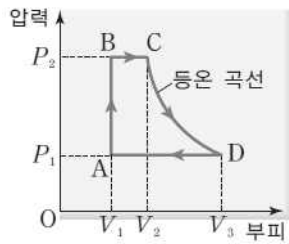
[1] 열과 내부 에너지



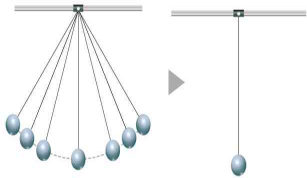
[2] 열역학 제 1 법칙



[3] 열역학 과정



[1] 비가역 과정



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[2] 열역학 제 2 법칙



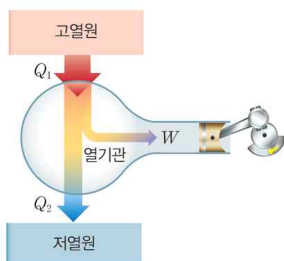
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[3] 열기관의 열효율



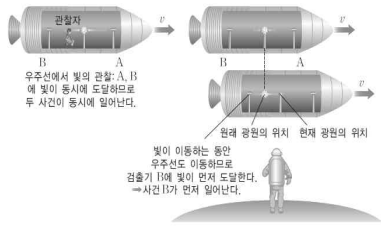
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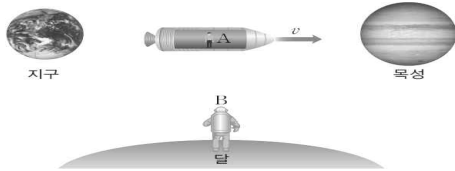
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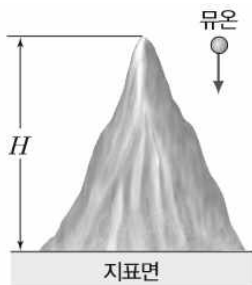
[1] 동시성의 상대성



[2] 시간 팽창과 길이 수축



[3] 특수 상대성 이론의 증거 - 뮤온의 운동



[1] 상대론적인 질량

$$m = \frac{m_0}{\sqrt{1 - v^2/c^2}}$$

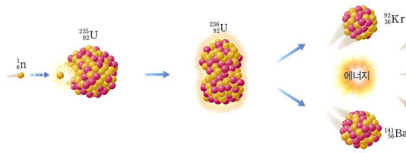
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[2] 핵분열과 핵융합



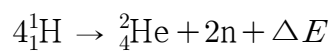
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[4] 핵반응식



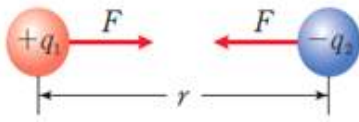
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[1] 전기력



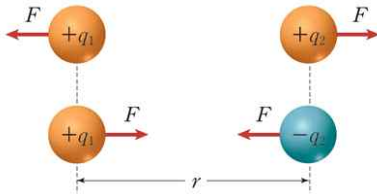
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[2] 쿨롱 법칙



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[3] 원자 모형



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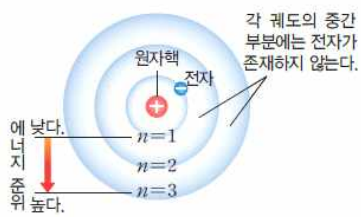
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[1] 스펙트럼



[2] 전자의 에너지 준위



[3] 수소 원자의 선 스펙트럼 계열



[1] 고체의 에너지띠



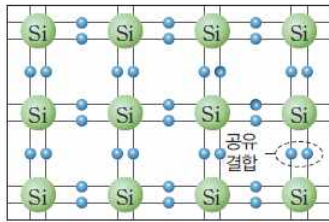
[2] 에너지띠 구조



[3] 전기 전도성

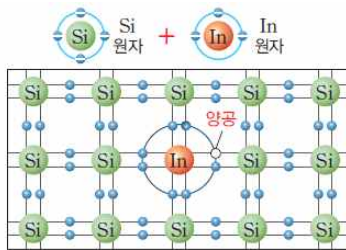


[1] 순수 반도체

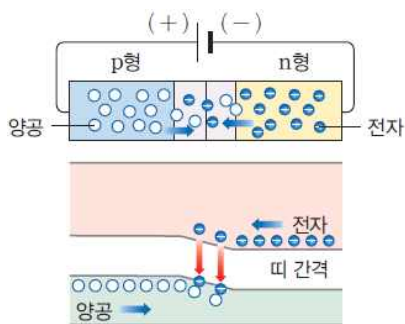


실리콘(Si)의 원자 구조

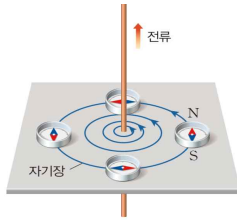
[2] 불순물 반도체



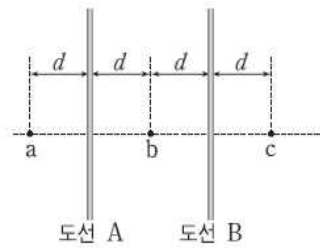
[3] 다이오드를 외부 전압과 연결



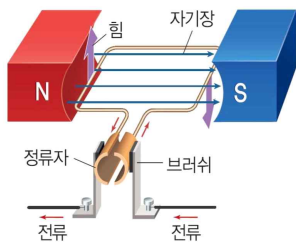
[1] 전류에 의한 자기장



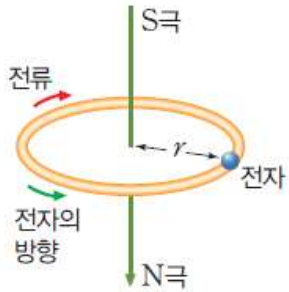
[2] 합성 자기장



[3] 자기장의 이용



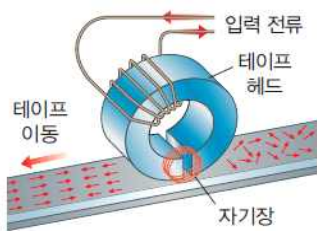
[1] 원자내의 전자의 운동



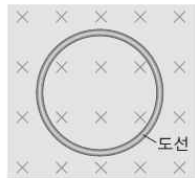
[2] 자성체



[3] 자성체의 이용

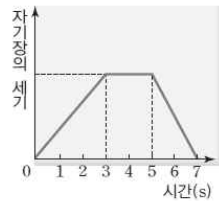


[1] 전자기 유도



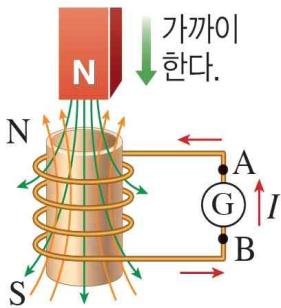
균일한 자기장 영역

(가)



(나)

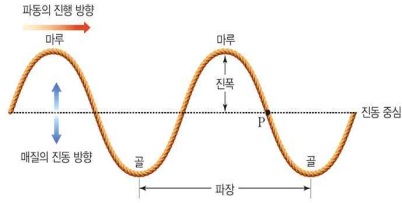
[2] 렌츠 법칙



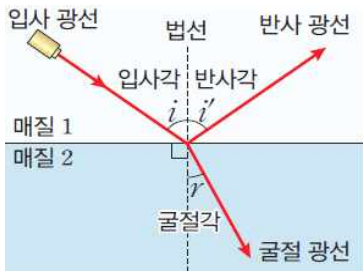
[3] 패러데이 법칙



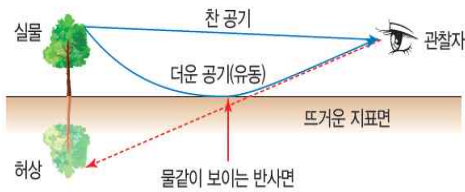
[1] 파동의 표시



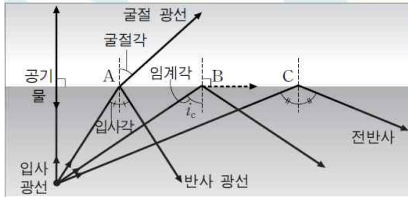
[2] 굴절 법칙



[3] 생활 속 굴절 현상



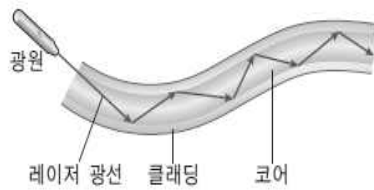
[1] 전반사



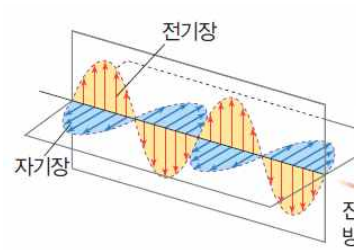
[2] 임계각과 굴절률

$$n_{21} = \frac{n_1}{n_2} = \frac{\sin i_c}{\sin 90^\circ} = \sin i_c$$

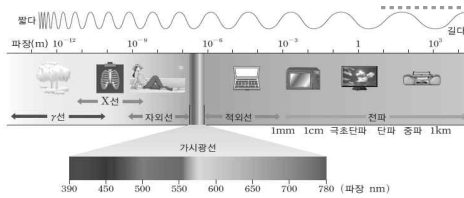
[3] 광섬유와 광통신



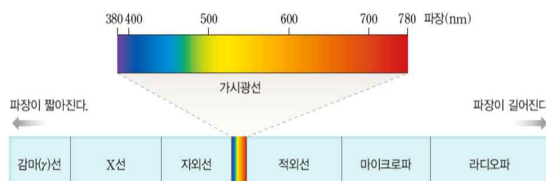
[1] 전자기파



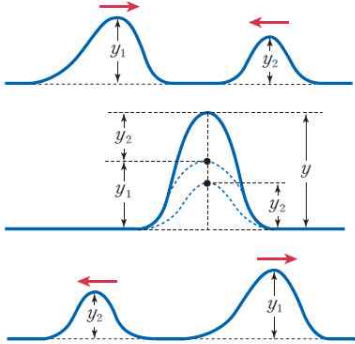
[2] 전자기파의 구분



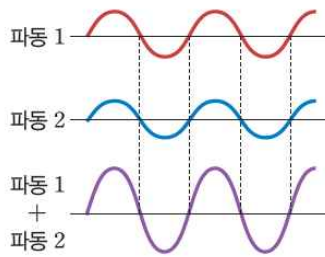
[3] 전자기파의 이용



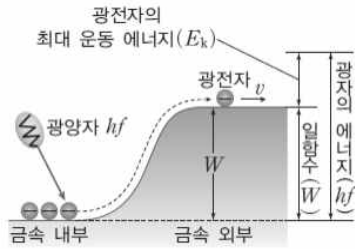
[1] 파동의 중첩과 독립성



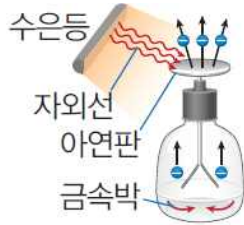
[2] 파동의 간섭



[1] 광양자설



[2] 검전기를 이용한 광전효과 실험



[3] 전하 결합 소자



[1] 물질파

$$\lambda = \frac{h}{mv}$$

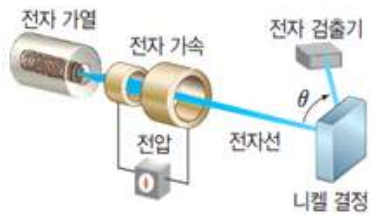
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[2] 데이비슨-거머 실험



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[3] 톰슨의 전자 회절 실험



전자선 회절 무늬



X선 회절 무늬

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