

# Mössbauer spectroscopy

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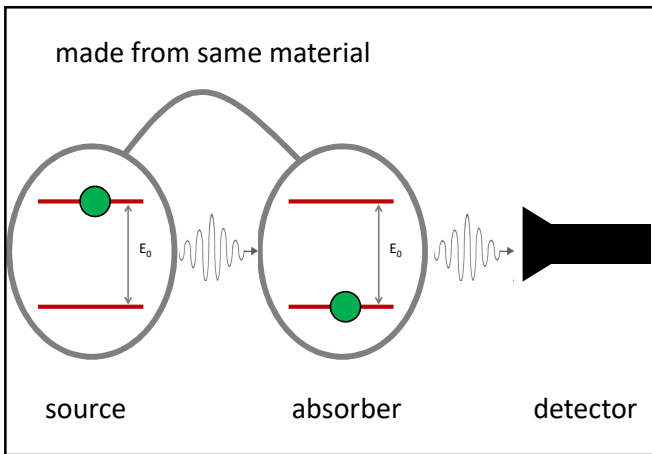
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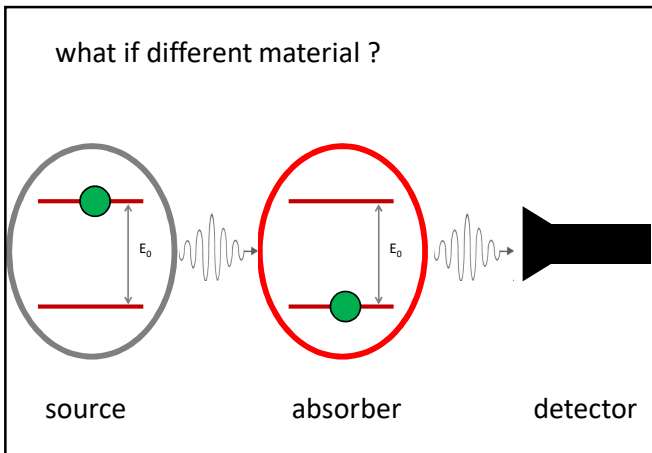
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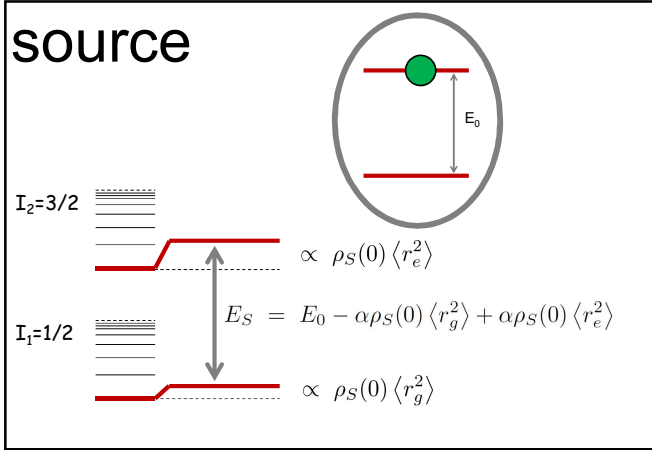
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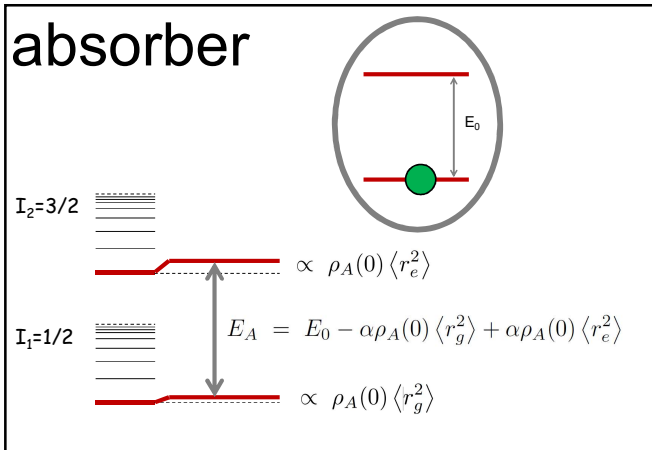
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$$E_S \neq E_A$$

$$E_S - E_A \propto (\rho_S(0) - \rho_A(0)) (\langle r_g^2 \rangle - \langle r_e^2 \rangle)$$

**$\mu\text{eV}$**

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$$\nu_{obs} = \nu_{rest} \left( 1 + \frac{v}{c} \right)$$

$$\Delta\nu = \nu_{rest} \frac{v}{c}$$

$$\underbrace{\Delta E}_{1 \mu eV} = \underbrace{E_0}_{100 keV} \frac{v}{c}$$

$$v = 3 \text{ mm/s}$$

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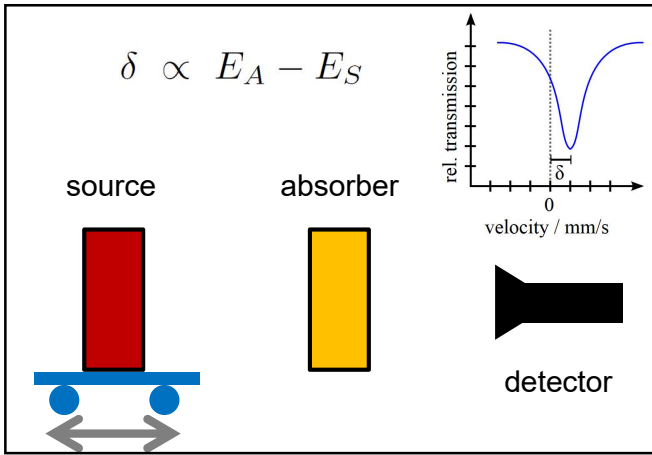
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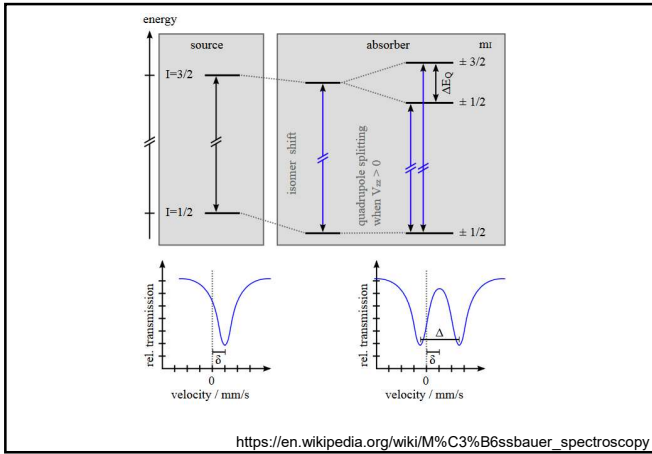
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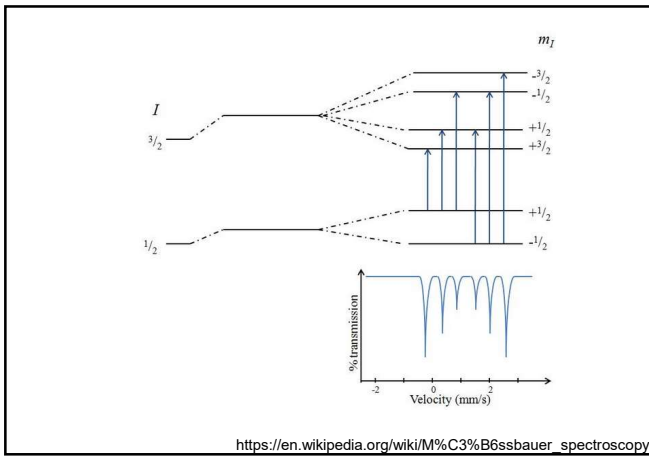
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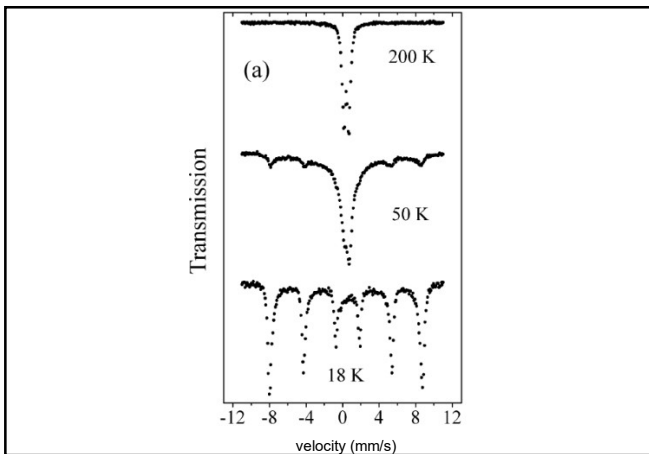
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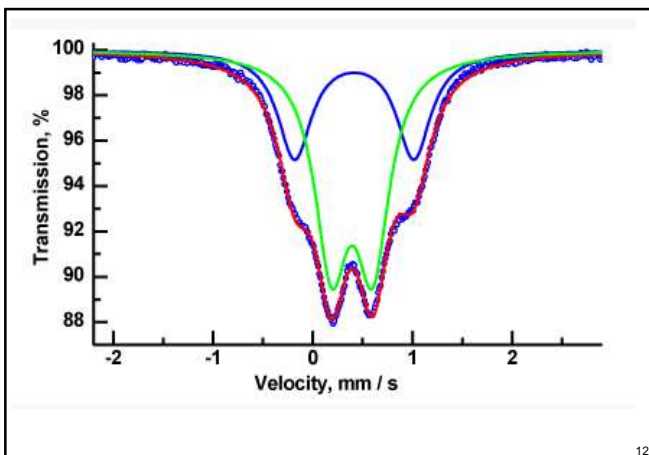
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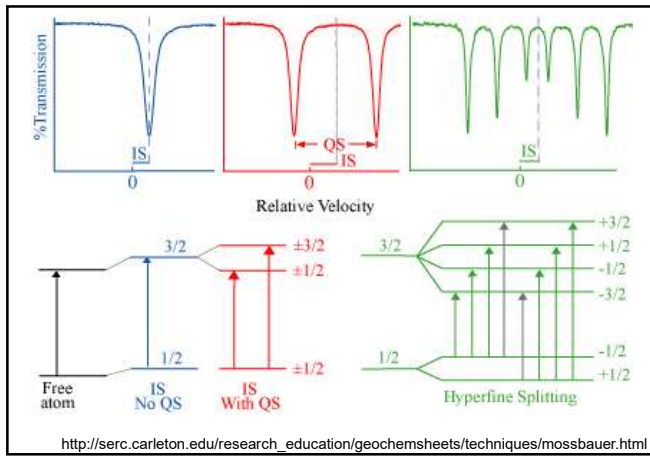
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