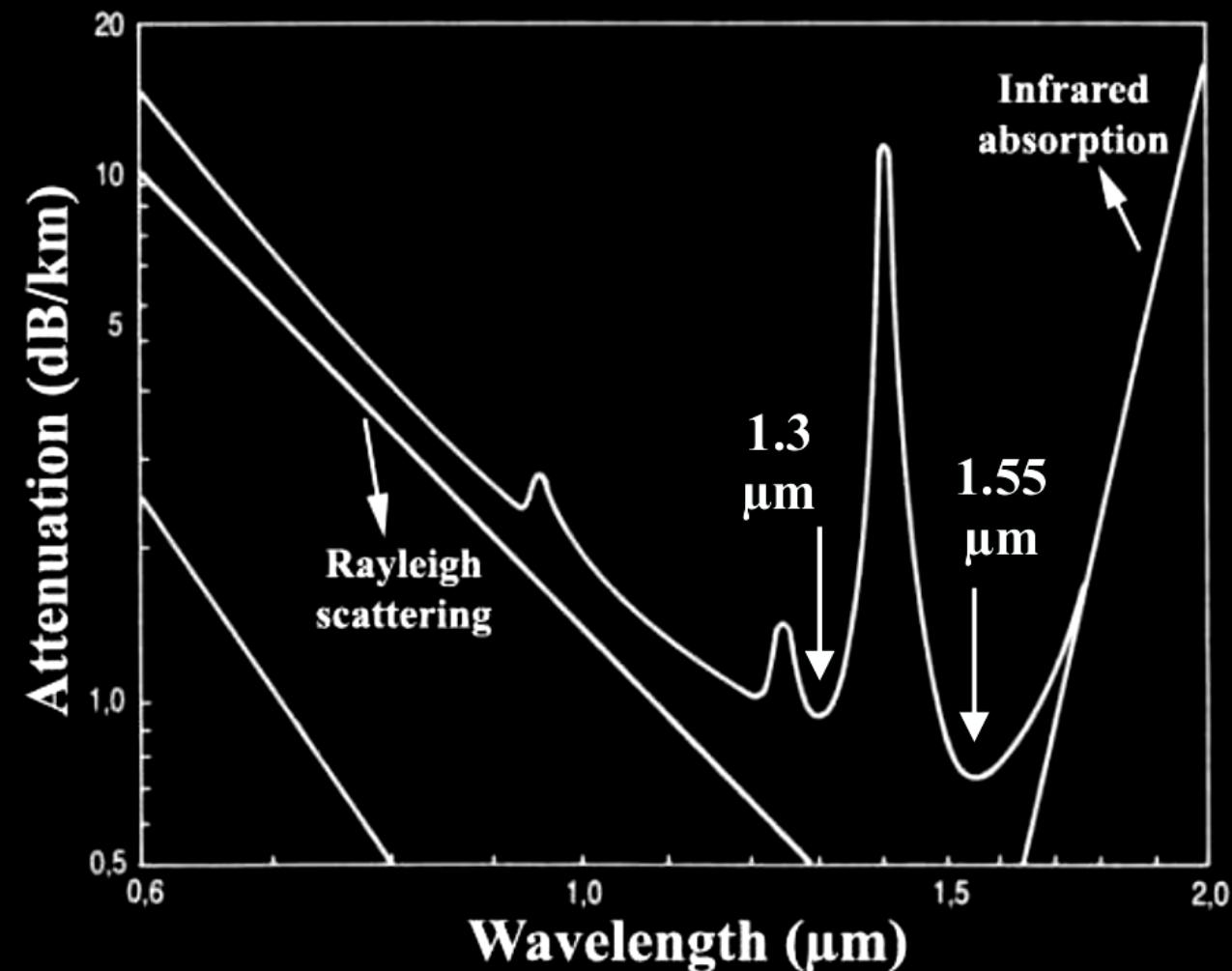




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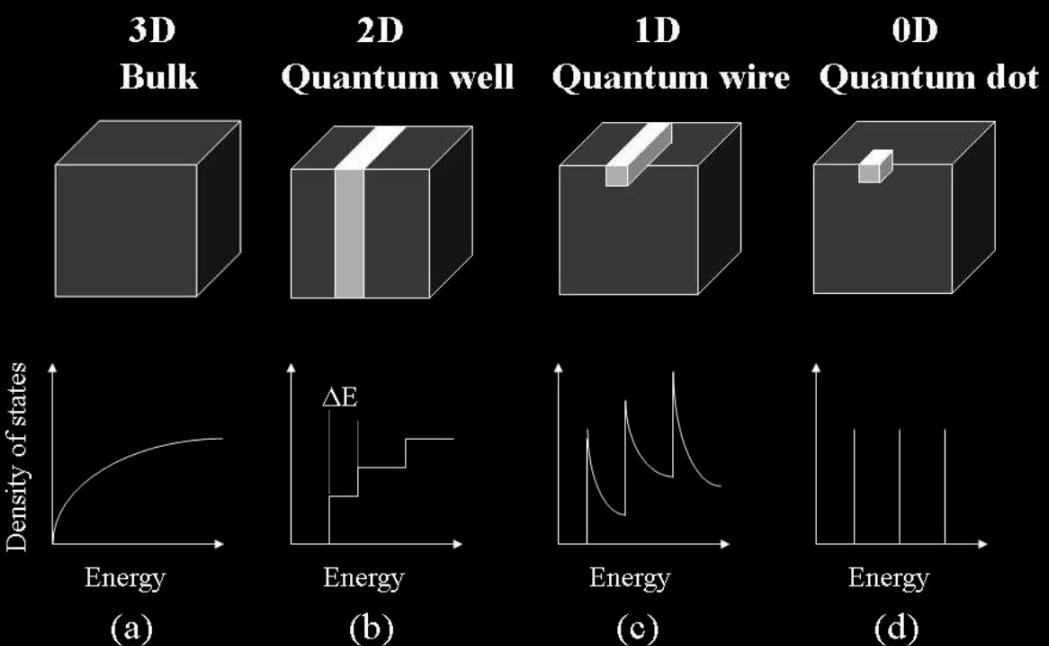
Magneto-optische  
eigenschappen van  
halfgeleider  
nanostructuren voor  
telecommunicatie

# Waarom?

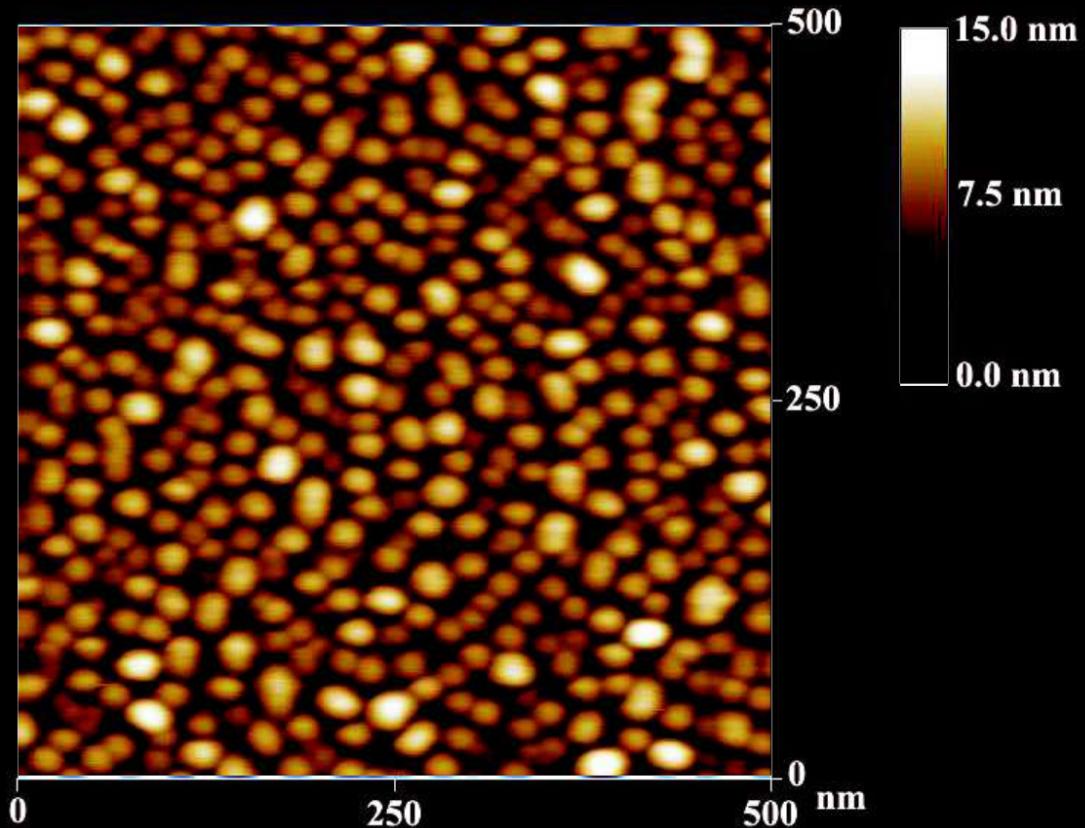


- Internet
  - ▶ Afstand
  - ▶ Veel data
- Glasvezel
- Damping
  - ▶ Materiaal
  - ▶ Golflengte

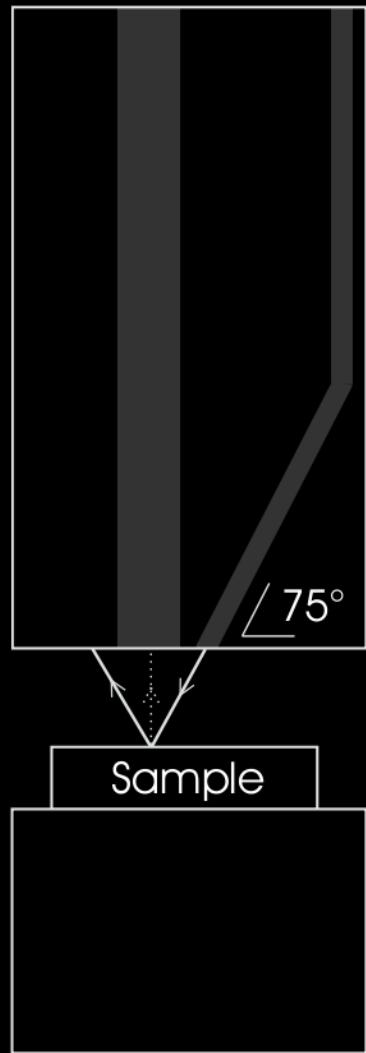
# Quantum well laser



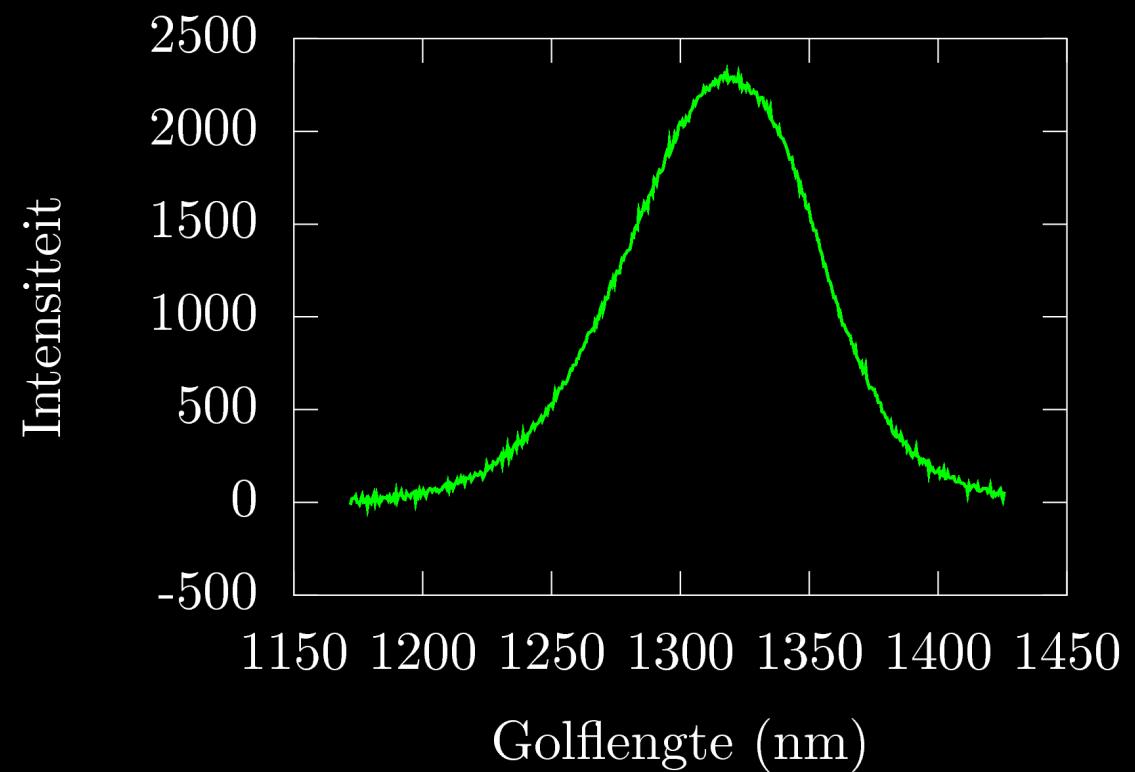
- Doel: fijne controle uitgezonden golflengte
- Quantum dot
  - Discrete energieniveaus
  - Afh v grootte



# Excitatie & Fotoluminescentie

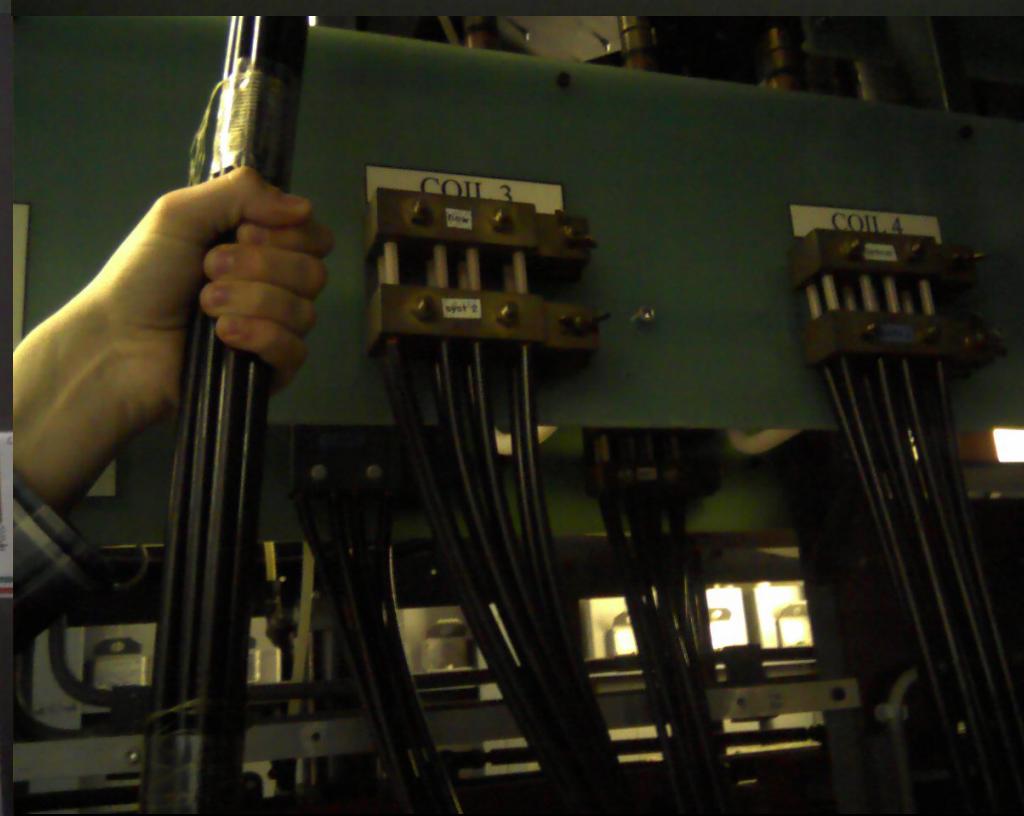


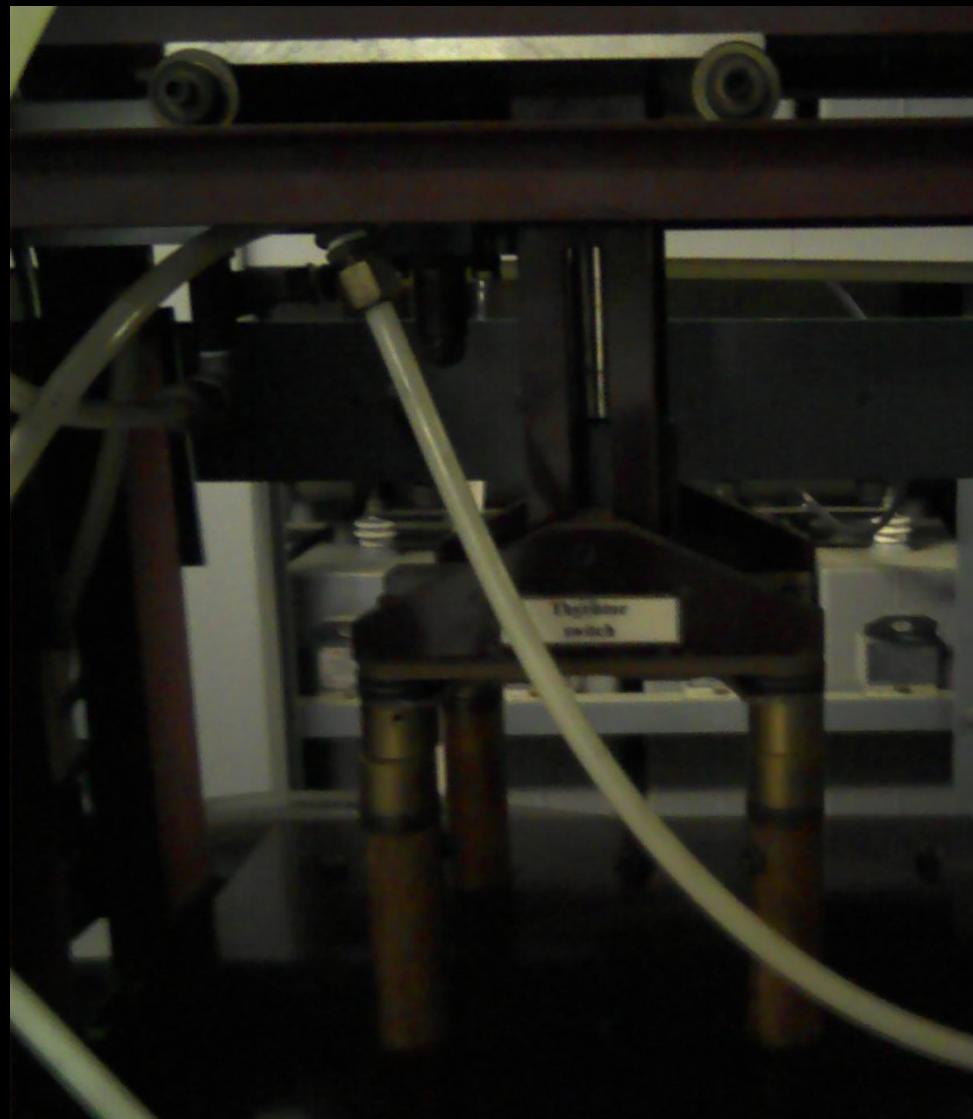
- Excitatie door laser
- Opvangen fotonen  
⇒ Spectrum



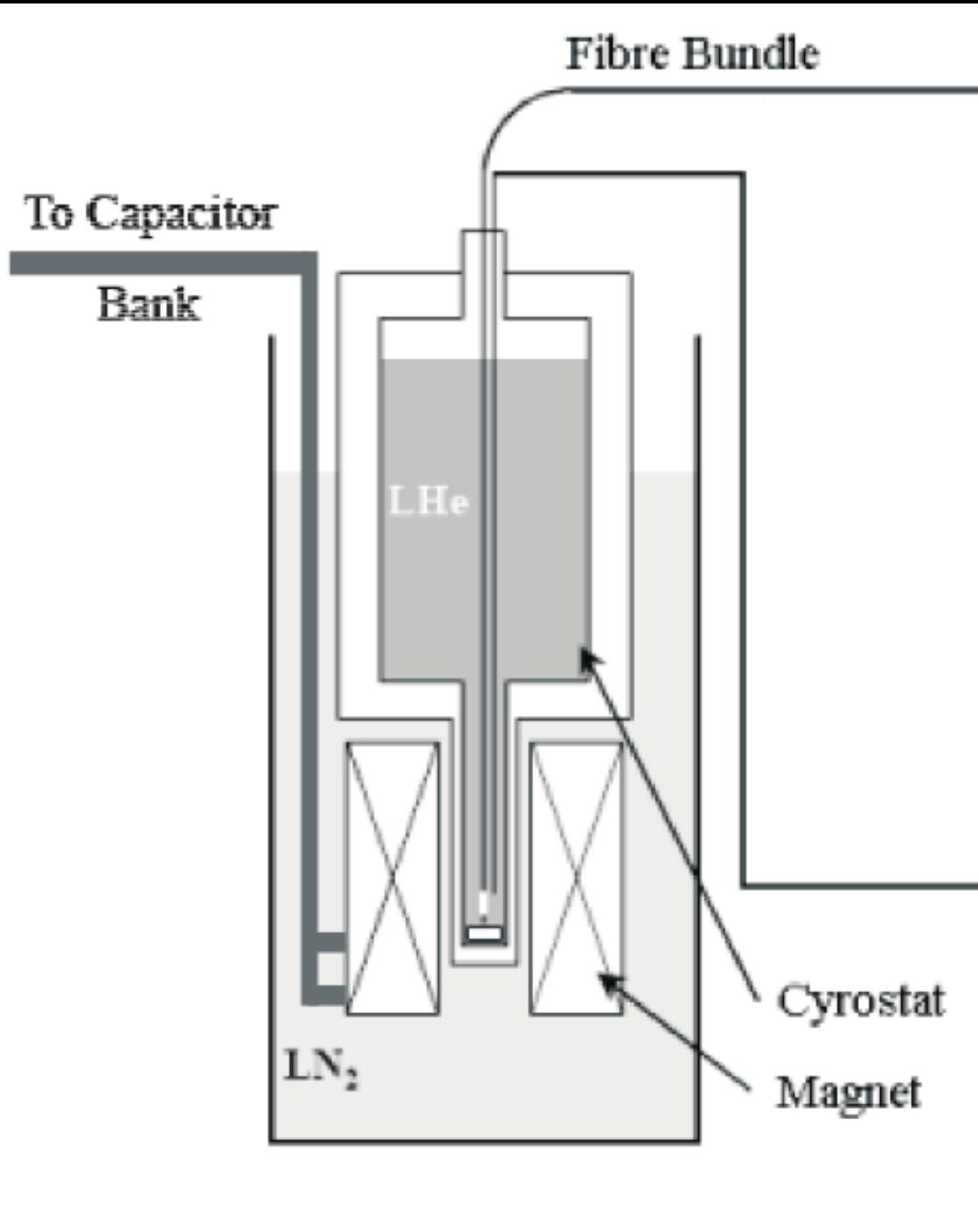
# Magnetisch veld

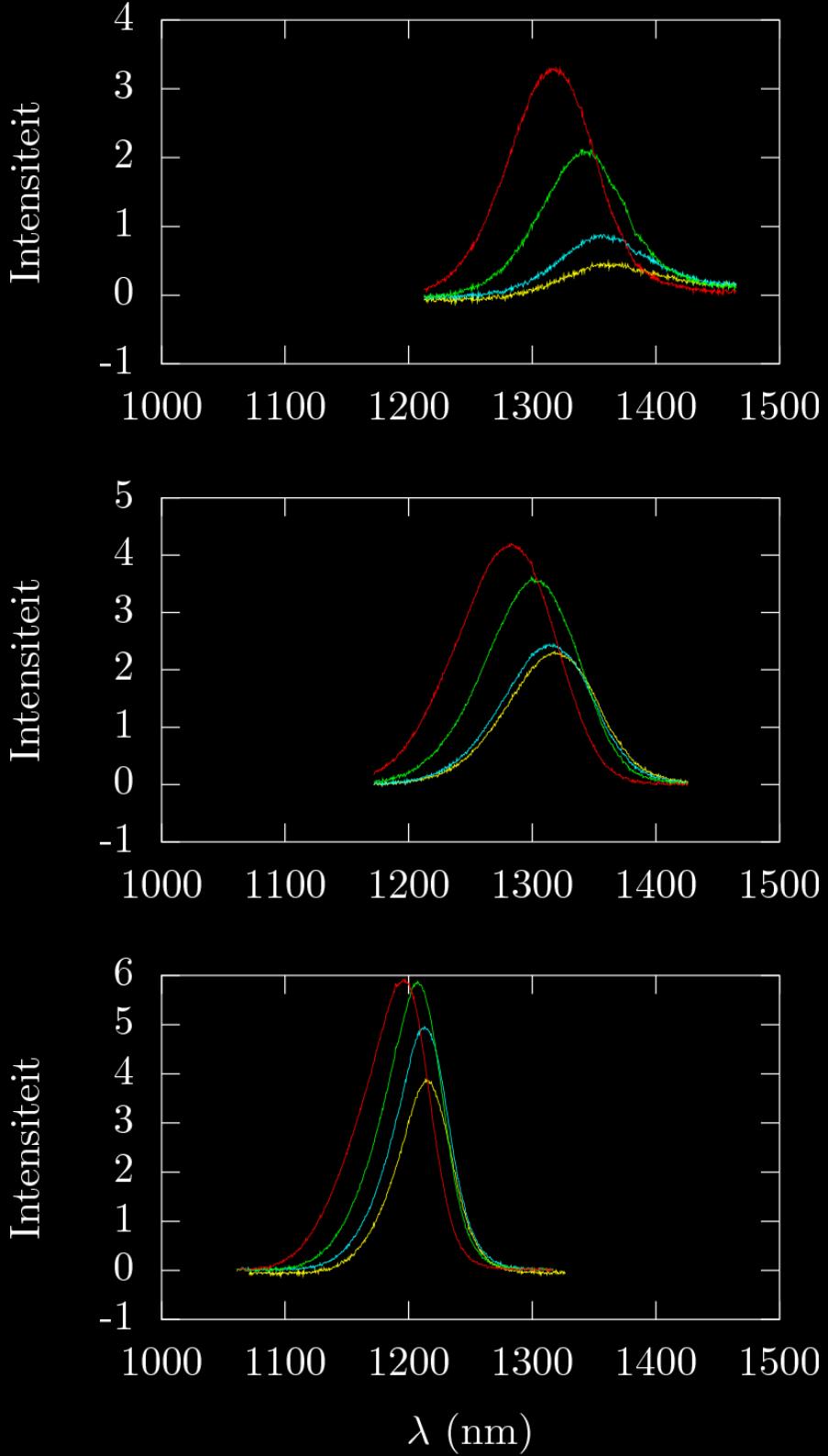
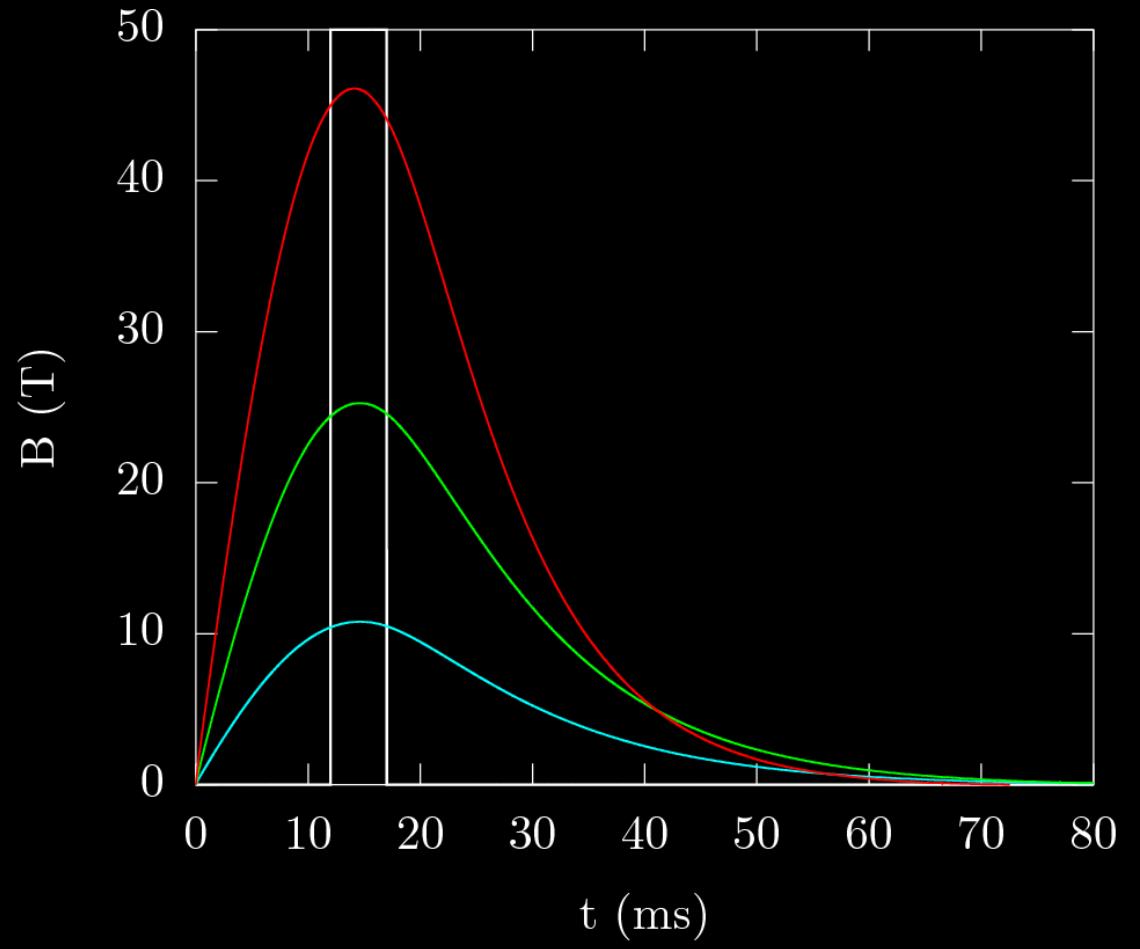
- **Magneto-optische eigenschappen**
- Gepulst
  - ▶ 20 ms
  - ▶ 10 tot 50 Tesla
- Condensatorbank naar Spoel
  - ▶ Hoge energie (5kV, 30 mF, 0.5MJ)

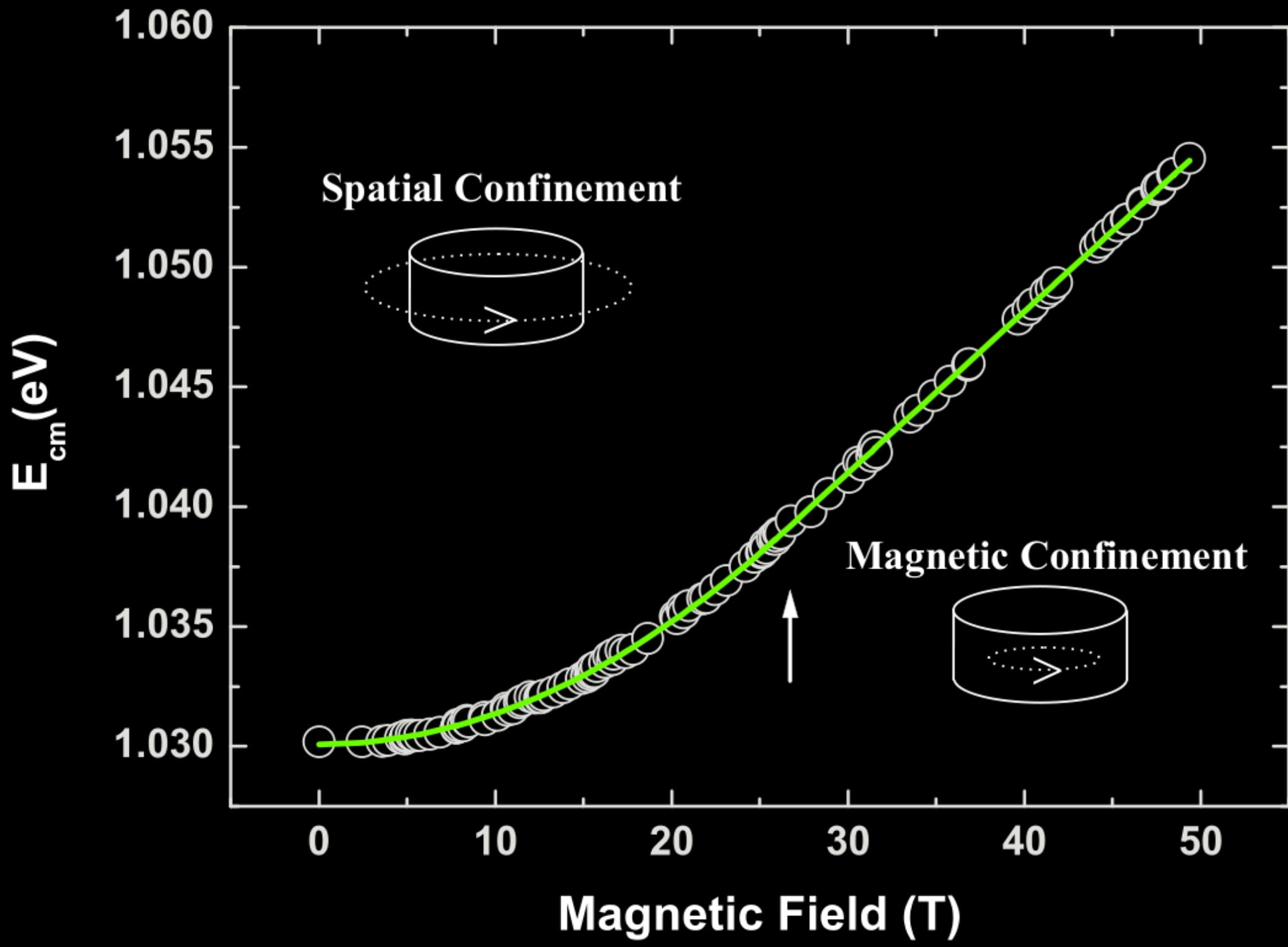












# Conclusie

- Experiment bevestigt model
- Materiaalparameters
- Toepassing in telecommunicatie

Met dank aan Dr. Thomas Nuytten