



A Journey from UCSB physics to GE sensing



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Outline

- **Are we physicists desirable in industry?**
- **What fields of practice are open for us?**
- **How to make a smooth transition?- three crucial steps**
- **My experience in industry**
- **Being successful**



Are we physicists desirable in industry?

- Yes!
- Yes!
- Yes!



What fields of practice are open for us?

- **Engineer**
- **Scientist**
- **Consultants**
- **Analyst**
- **Contractor**



How to make a smooth transition?-three crucial steps

- **First step: application**
 - What is industry looking for?
(read job descriptions carefully)
 - Knowledge of the company's business
 - Experience in the field
 - Innovation
 - Team player



How to make a smooth transition?-three crucial steps

- **Second step: Interview**
 - Know your strengths, Know your weaknesses
 - Play up your Knowledge and Experience
 - Show that you are
 - Enthusiastic
 - Hard working
 - A Fast Learner
 - Creative



Example Appraisal Matrix for a Software Engineer

Evaluate the following competencies:	Score	Comments/Examples
<p>Technical</p> <p>Software development, PC application development, ability to cross-train, software architecture</p>		
<p>Communication</p> <p>Develop support documentation, manuals; Software documentation; Ability to communicate to customers, employees; Ability to present ideas clearly</p>		
<p>Interpersonal</p> <p>Ability to interact with co-workers; Participates in Team projects Effectively interact with employees</p>		
<p>GE Quality</p> <p>SPC, Six Sigma, ISO Customer interaction: specs, etc.</p>		
<p>GE Culture</p> <p>Passionate, resourceful, accountable Teamwork, open, energizing</p>		



How to make a smooth transition?-three crucial steps

- **Third step: work in industry**
 - **What it takes to be a desirable employee**
 - Get things done (On Time)
 - Team player
 - **What it takes to be successful in your career**
 - Establish a clear goal
 - Achieve the goal



GE Growth Traits

Growth Traits

- ★ Creates an **external focus** that defines success in market/industry terms
- ★ Is a **clear thinker** who can simplify strategy into specific actions, makes decisions and communicates priorities
- ★ Has **imagination** and courage to take risks on both people and ideas
- ★ Can energize teams through **inclusiveness** and connection with people ... builds loyalty and commitment
- ★ Develops **expertise** in a function or domain, using depth as a source of confidence to drive change



imagination at work

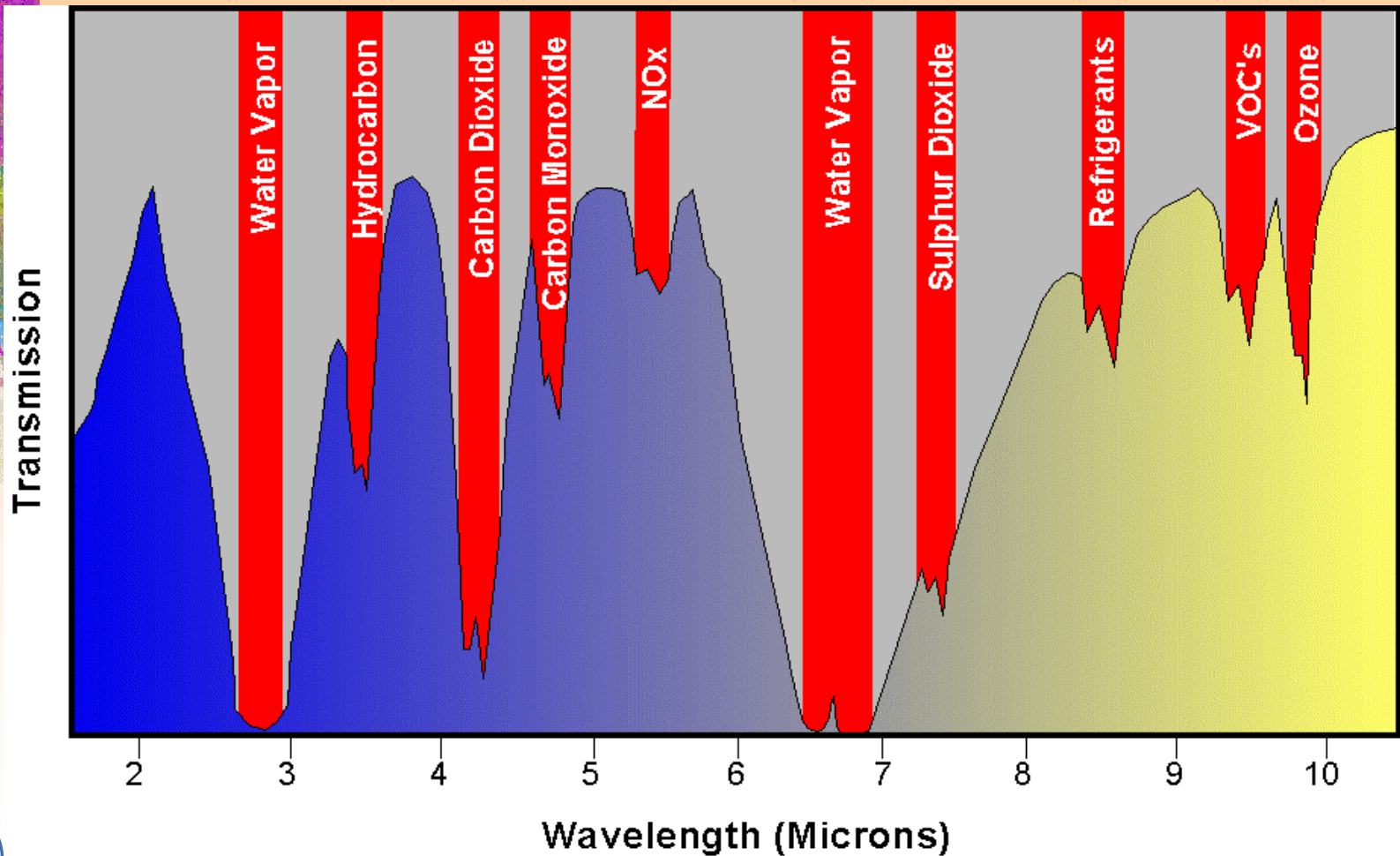


My experience in industry

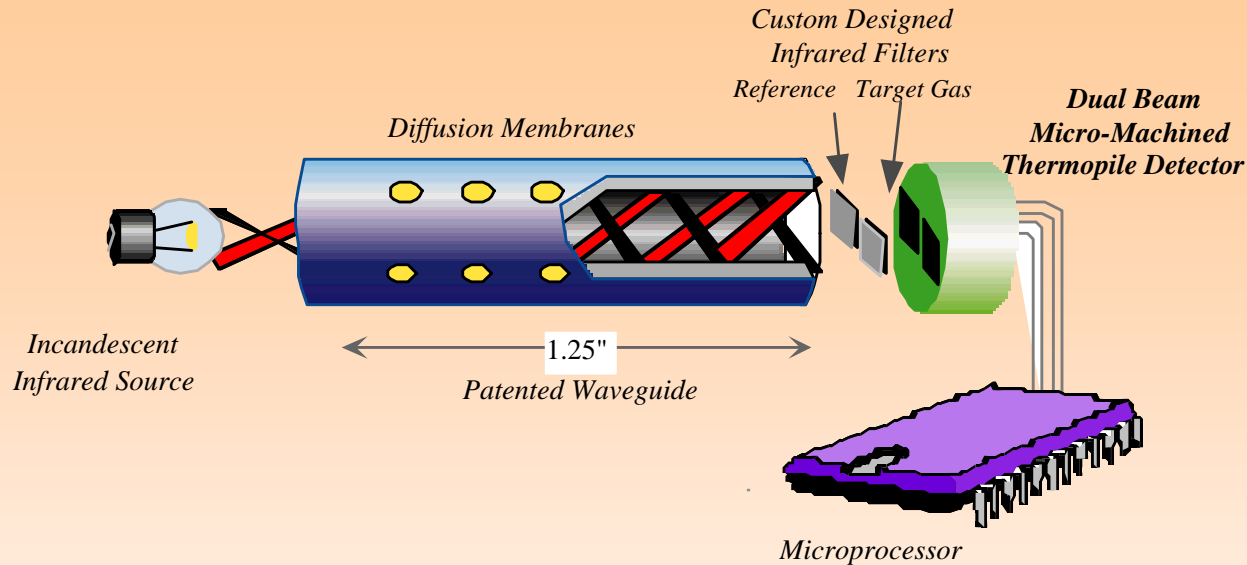
- **Working with people**
- **Problem solving**
- **Fast Paced**
- **Flexibility**
- **Creativity**
- **Challenges**



Infrared Absorption Of Gases



Telaire's Infrared Design

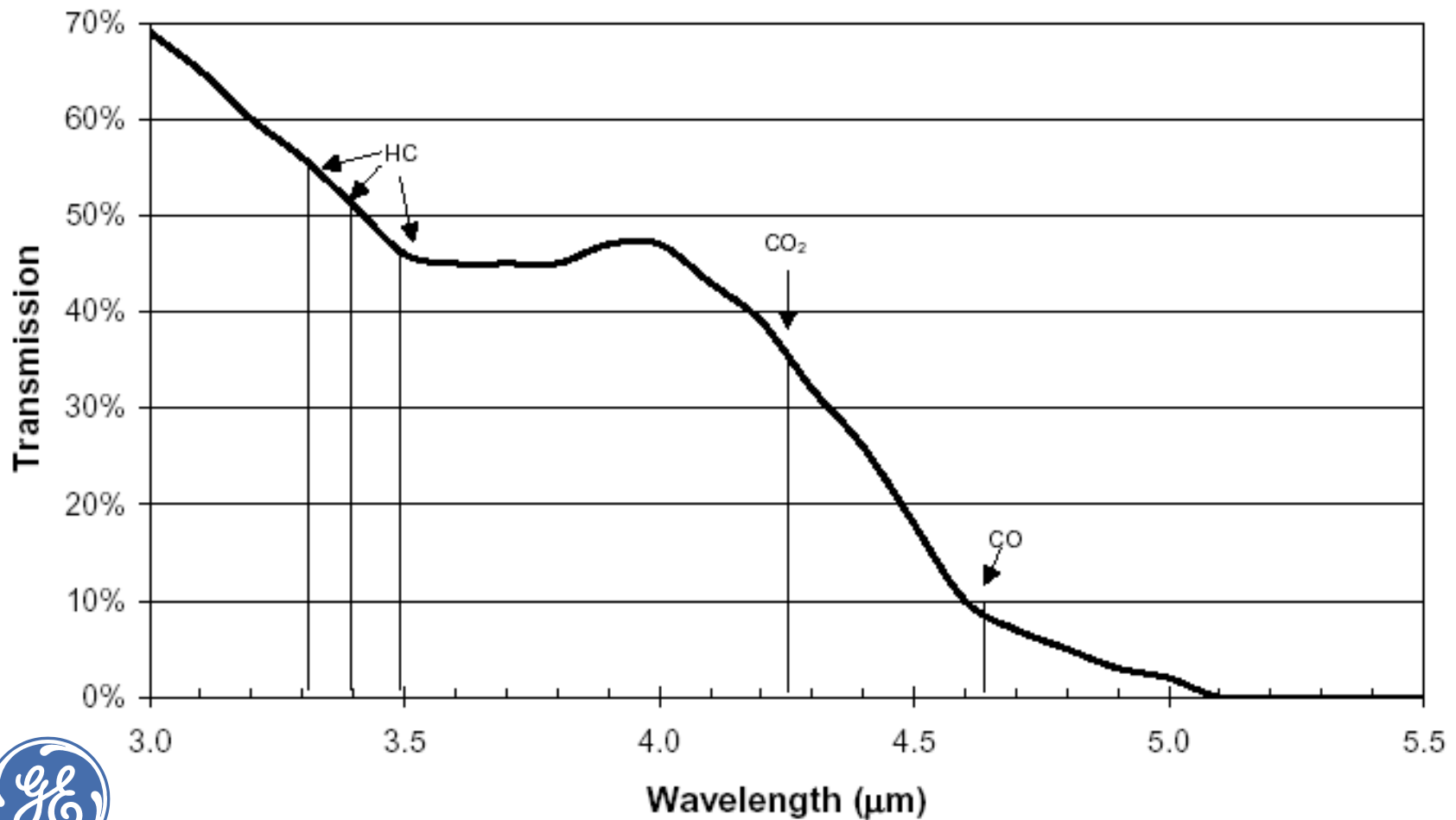


- ❑ Patented low cost design based on optical wave-guide and highly integrated electronics
- ❑ Incandescent IR source and multi-channel thermopile detector
- ❑ Current gases applicable: CO₂, H₂O, CO, Hydrocarbons
- ❑ Multiple gas sensing possible in a single sensor (CO₂ & H₂O)

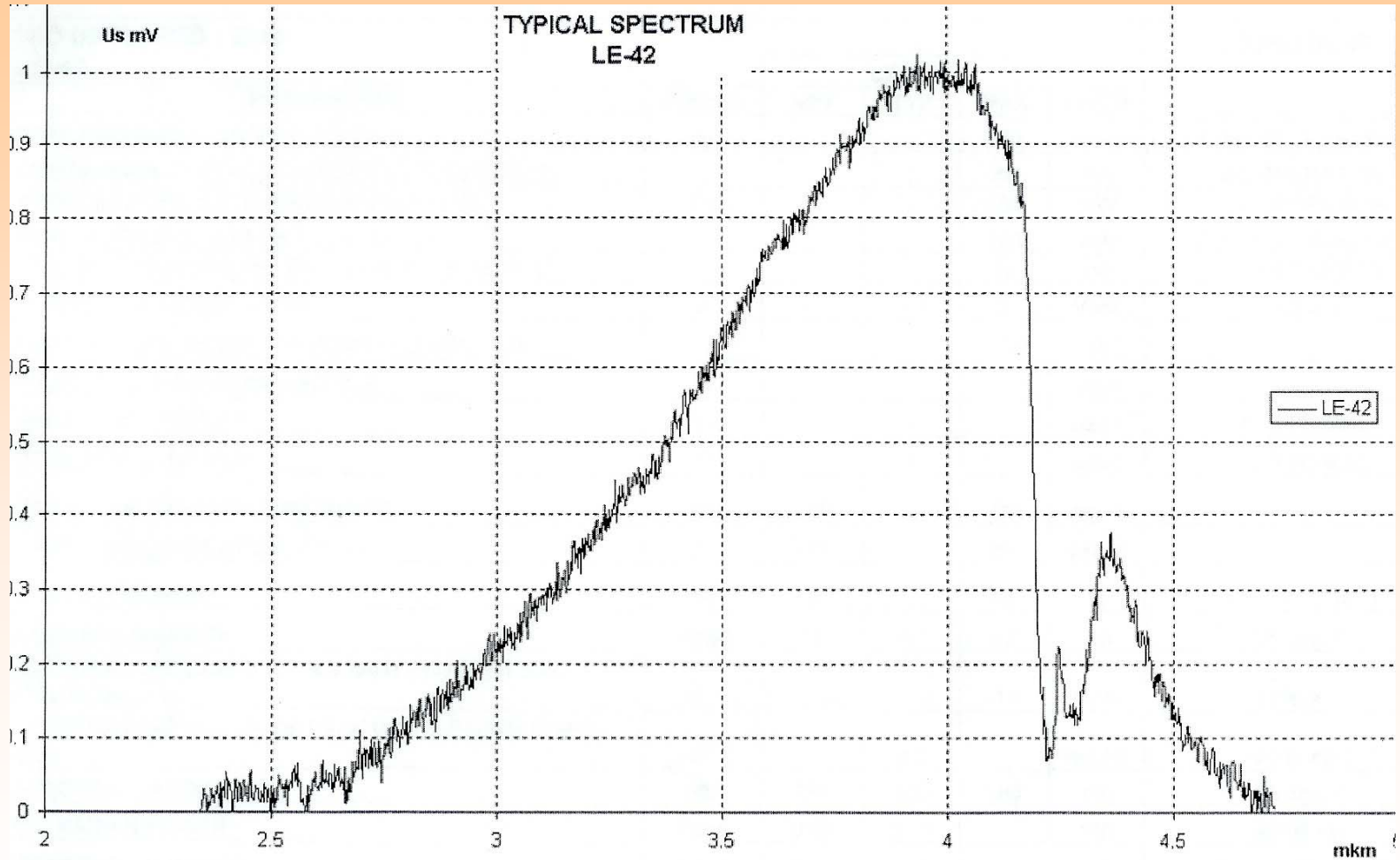


IR lamp spectrum

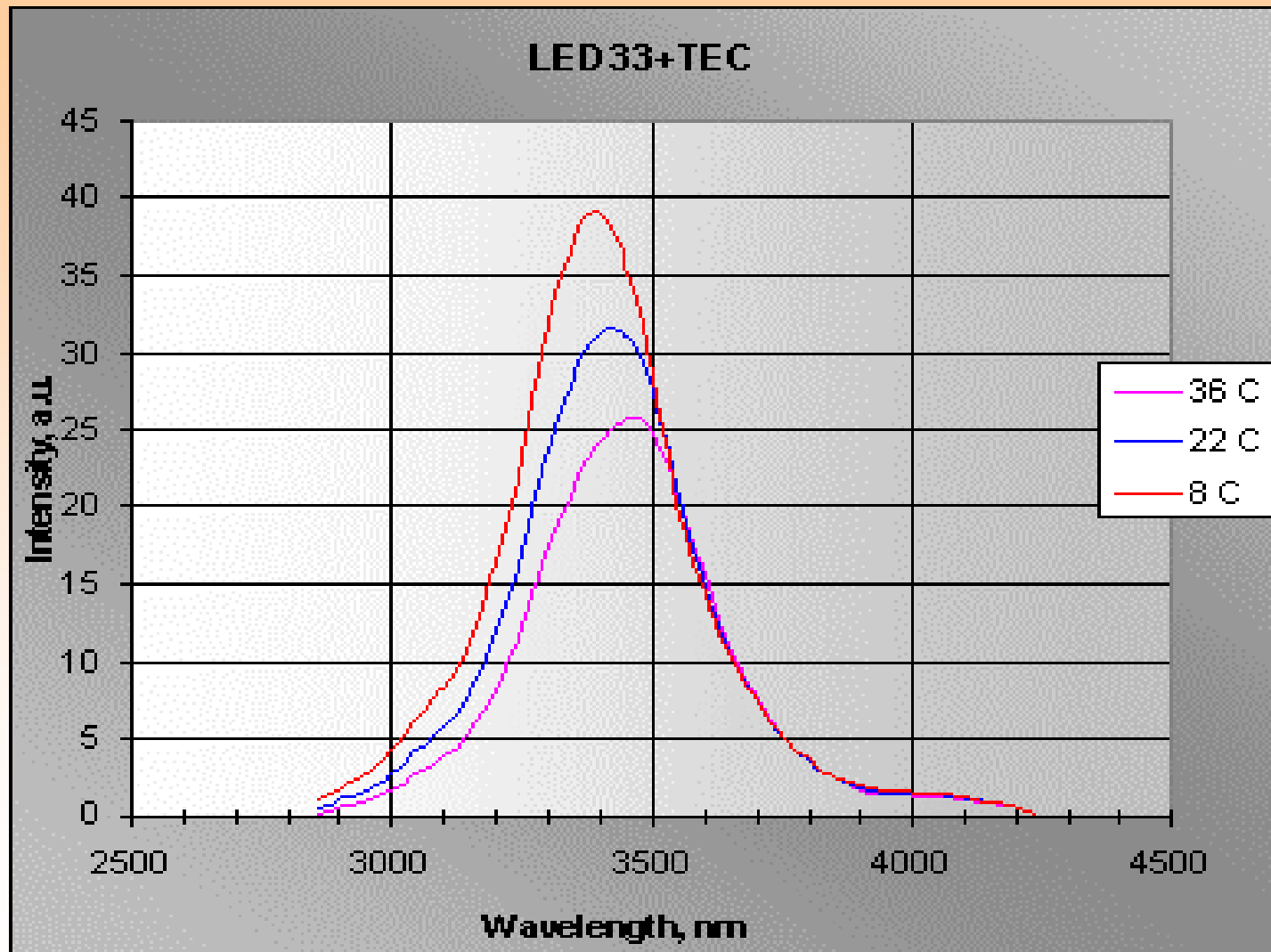
Spectral Transmission of the Glass Envelope for Visible/IR Lamps
and Absorption Wavelengths for Specific Gases



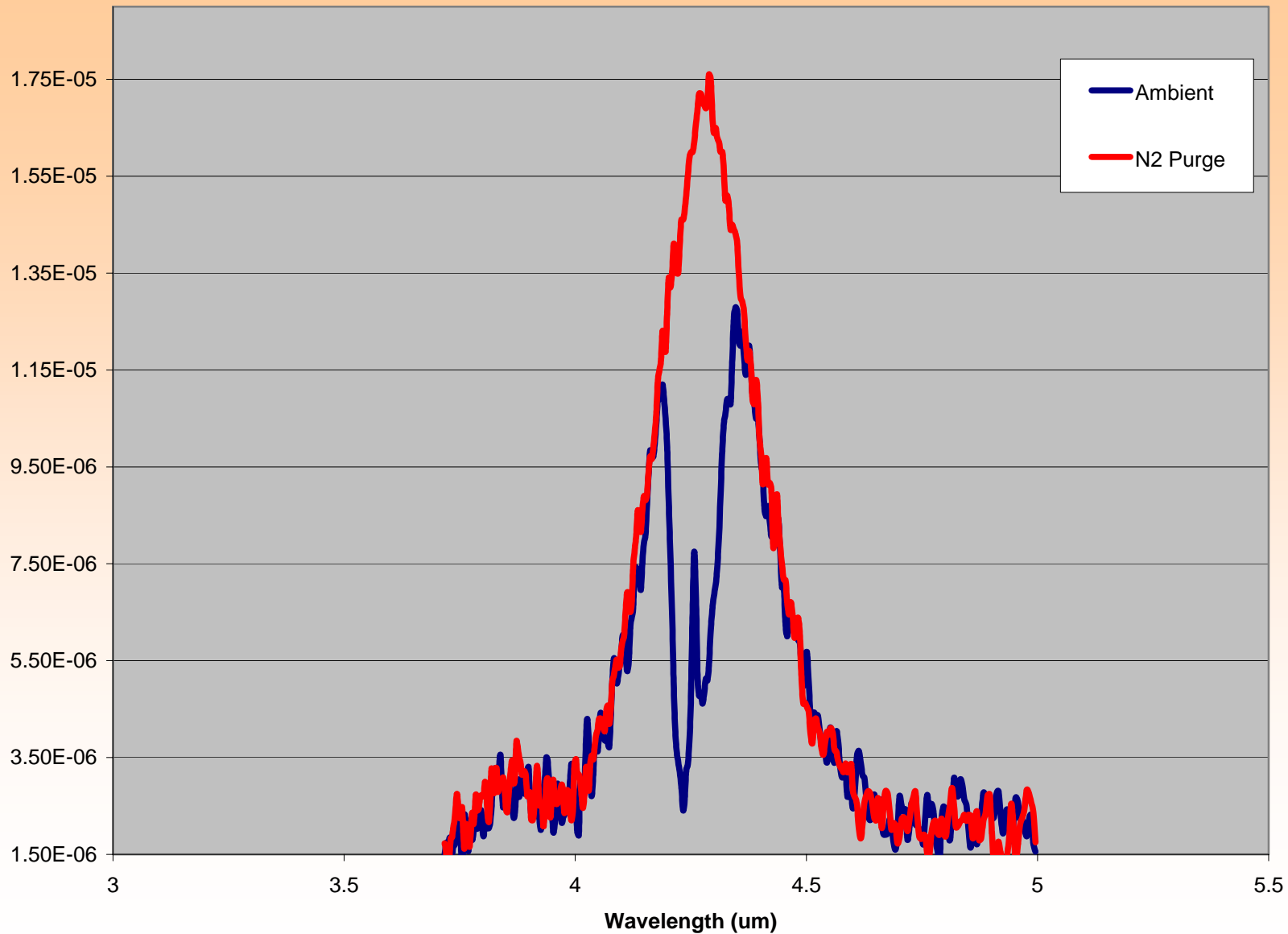
Best Infrared LED sample-RMT Ltd Russian



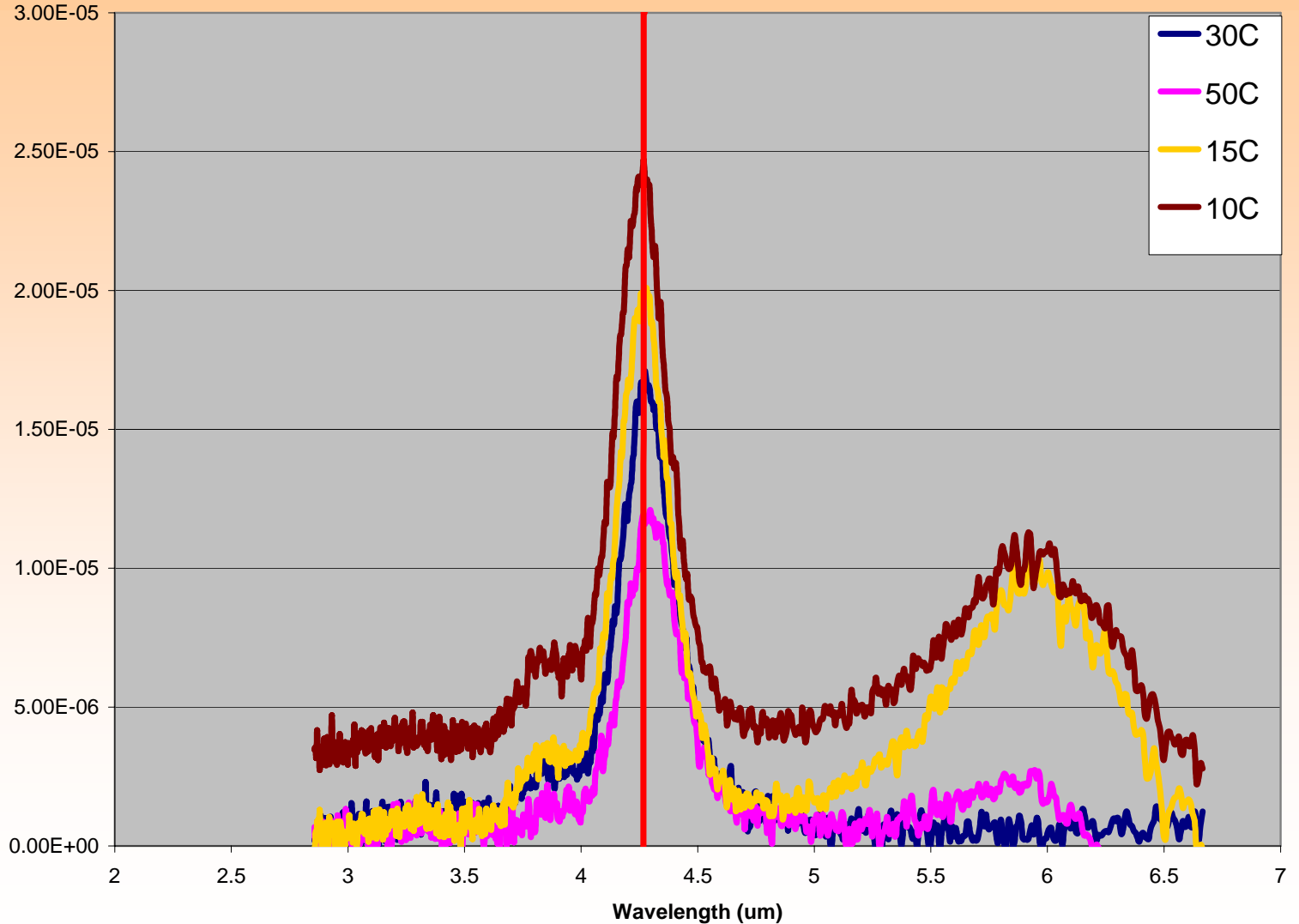
LED spectrum shift under temperature change



My RCLED spectrum (70mA drive current)



LED Spectrum at different Temperatures (10C-50C)



Be successful

- **Enjoy what you do**
- **Be Creative**
- **Take challenges**

