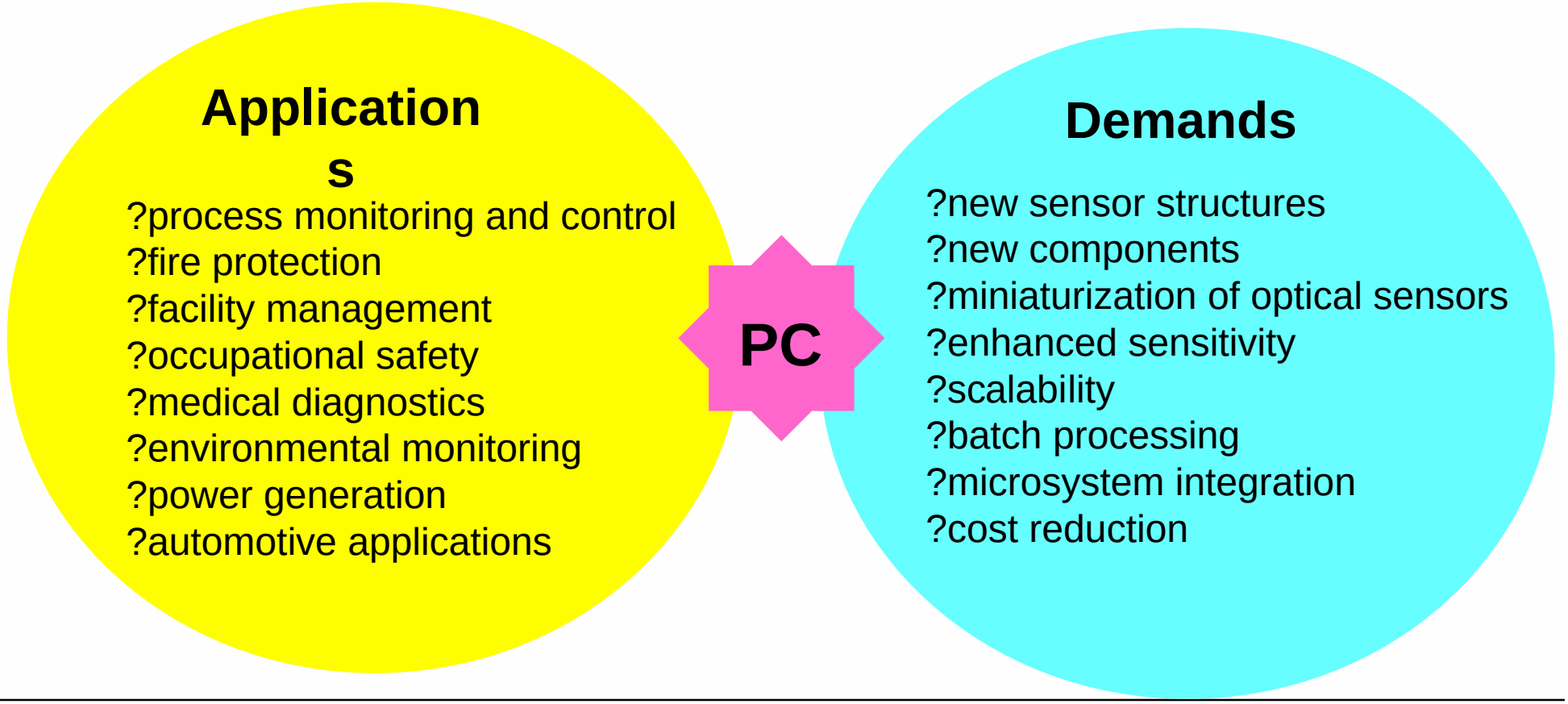
Photonic Crystals for Sensor Applications



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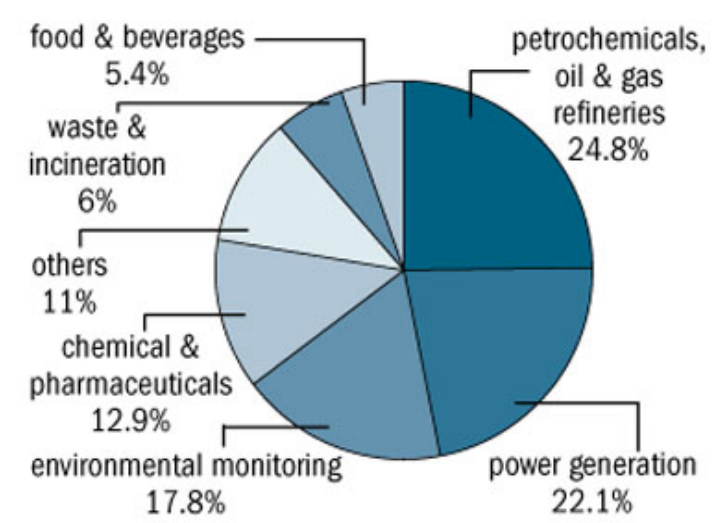
Example: Photonic Crystals for Infrared Gas Sensors

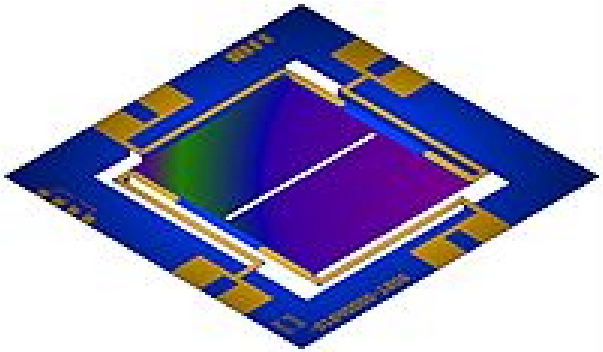
Infrared devices lead gas-sensors market

(from Opto & Laser Europe November 2001)

The Frost & Sullivan report values last year's European gas sensors and analysers market at USD 283.9 million. Infrared gas sensors accounted for USD 112.4 million, or 40% of total revenues. The demand for infrared sensors is expected to remain high as applications for the technology increase over the next few years, with revenues reaching USD 133.3 million in 2007. This represents a compound annual growth rate of 2.4% for the forecasted period.



Ion Optics, Inc: The SensorChip™ is a wavelength-tuned, MEMS-based micro-bridge element. Using photonic bandgap (PBG) technology, the micro-bridge emits and absorbs efficiently in a narrow waveband centered on the signature wavelength of the target gas. Ion Optics tunes the infrared wavelength (like an LED) during production using standard, stable semiconductor manufacturing techniques.



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