# **Typical Filter Plots**







### 2.4.9 Transmission Spectrums of the Standard NBP Filters

Diagram 5: NBP Filter for measuring carbon dioxide



Diagram 6: NBP filter for measuring carbon monoxide



Diagram 7: NBP filter for measuring hydrocarbons and reference filters



Diagram 8: NBP filter for flame detection as well as measuring nitrogen monoxide and sulphur dioxide



## 2.4.10 Transmission Spectrums of the Standard Windows

Diagram 9: Calcium fluoride



Diagram 10: Barium fluoride



Diagram 11: Sapphire







Diagram 13: Silicon windows with antireflective coating



Diagram 14: Silicon-based wideband passes (WBP)



Diagram 15: Silicon-based longwave passes (LWP)

#### 2.4.11 Quality

Filters and windows of the detectors from InfraTec comply with MIL-F-48616, a specification for purchasing IR interference filters for the US army. For military new developments it is not anymore in use (inactive), but still valid and is used very frequently in non-military fields because of lack of comparable standards there.

- Surface quality: F-F
- Resistance to environmental influences
  - Temperature § 4.6.9.1
  - Humidity § 4.6.8.2
  - Medium abrasion resistance § 4.6.8.3
  - Adhesion § 4.6.8.1
  - Solubility and possibility for cleaning § 4.6.9.2