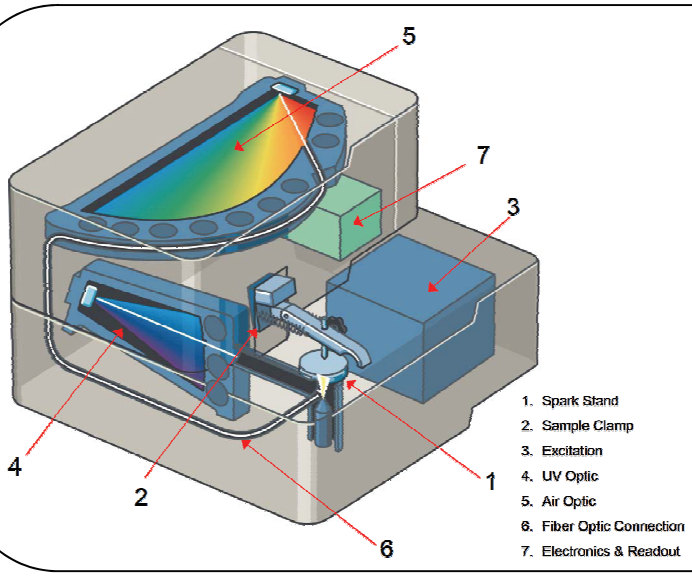
# Optical Emission Spectrometer – Spark emission



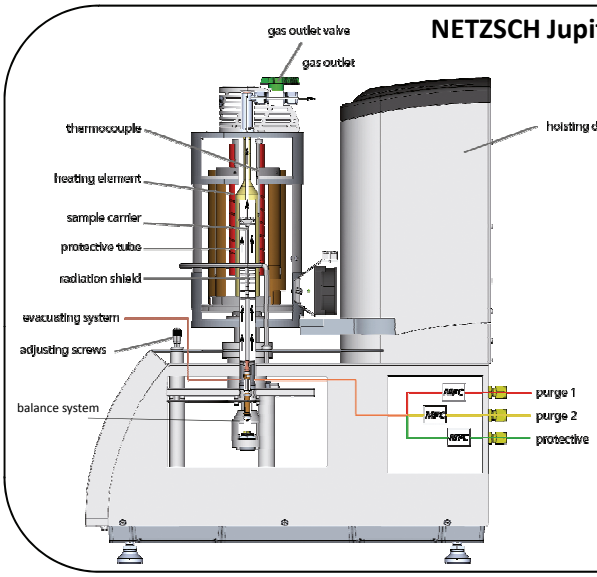

- determination of all in the metal industry required elements
- including traces of carbon, nitrogen, sulfur and phosphorus
- for the relevant matrices (base metals), like Fe, Ni, Al, Cu, Mg und Ti

SampleNo AZ31_Sg Program Mg-01-M

| | Mg % | Na % | Be % | Ca % | La % | Zr % | Mn % | Fe % | Ni % | Cu % | Ag % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Wert | 95,7 | 0,00017 | <0,0000 | 0,00175 | <0,0007 | <0,0010 | 0,300 | 0,0112 | 0,00788 | <0,0005 | <0,0001 |

| | Zn % | Cd % | Al % | Si % | P % | Sn % | Ce % | Pr % | Nd % | Th % | Pb % |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Wert | 0,872 | <0,0002 | 3,10 | 0,00806 | <0,0005 | <0,0010 | 0,00922 | <0,0015 | <0,0040 | <0,0100 | <0,0040 |

# Simultaneous Thermal Analysis – TGA + DSC

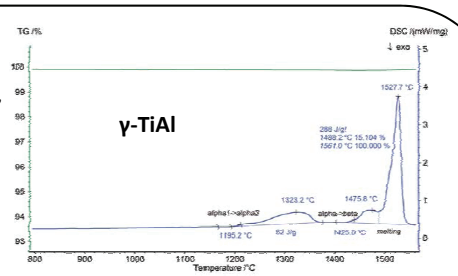


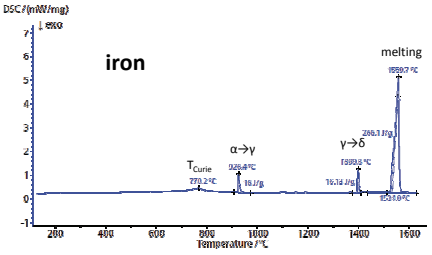

## NETZSCH Jupiter F3

- up to 1550 C
- argon, argon/ hydrogen, nitrogen, air

DSC analysis possibilities:
- Melting/crystallization behavior
- Solid-solid transitions
- Oxidative stability
- Purity Determination
- Specific heat

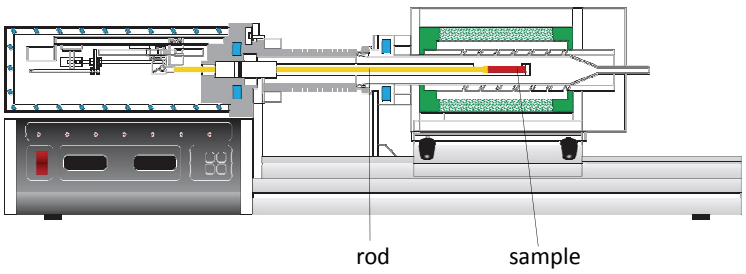
TG analysis possibilities:
- Mass changes
- Temperature stability
- Oxidation/reduction behavior
- Decomposition
- Corrosion studies
- Compositional analysis




# Dilatometer

## Linseis L75




- up to 1500°C
- atmosphere: inert, reducing, oxidizing

## $MoSi_2$ + 35% $ZrO_2$