

MATERIALIEN UND OBJEKTIVE FÜR INFRAROTANWENDUNGEN

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Sill Optics GmbH & Co. KG

The logo for Sill Optics features the word "Sill" in a large, blue, sans-serif font. Below it, the word "OPTICS" is written in a smaller, blue, sans-serif font. A horizontal rainbow-colored line passes through the middle of the "Sill" text.

Sill
OPTICS

VERFÜGBARE MATERIALIEN

IR Material	N(3 um)	N(4um)	N(5um)	N(7 um)	N(10 um)	Knoop Hardness	Thermal Conductivity	dN/dT
						kg/mm ²	W/m*K	
Germanium	4,044	4,025	4,016	4,008	4,004	800	59,9	426
Silizium	3,432	3,425	3,422	3,419	3,417	1150	140	166
ZnS	2,257	2,252	2,247	2,232	2,2	178	16,7	49,8
ZnSe	2,437	2,433	2,429	2,422	2,406	137	13	59,7
CAF2	1,418	1,409	1,399	1,369	1,326	158	9,7	-11,5
Saphir	1,712	1,675	1,624				6,65	
BAF2	1,461	1,456	1,451	1,435	1,414	82	12	-16,3
IRG1..100	1,51..2,6					107..608	0,3..1,1	
IG1..6					2,6	106..150	0,33	
GASIR	2,514	2,51	2,507	2,502	2,494	NA	0,28	55
AMTIR1	2,519	2,514	2,511	2,506	2,5	170		72
As2S3	2,4					109	0,17	
GaAs	3,31	3,306	3,301	3,292	3,278	750	0,37	157

1. EIGENSCHAFTEN

- *Brechungsindex und Dispersion*
- *Interne Transmission*
- *Empfindlichkeit*
- *Wärmeleitfähigkeit*

2. OPTISCHE EIGENSCHAFTEN EINES OBJEKTIVES

- *Lichtstärke*

- *Auflösung*

Farbkorrektur / Wellenlängenbereiche

Man unterscheidet im Allgemeinen drei Bereiche:

NIR : 1..3 μm :

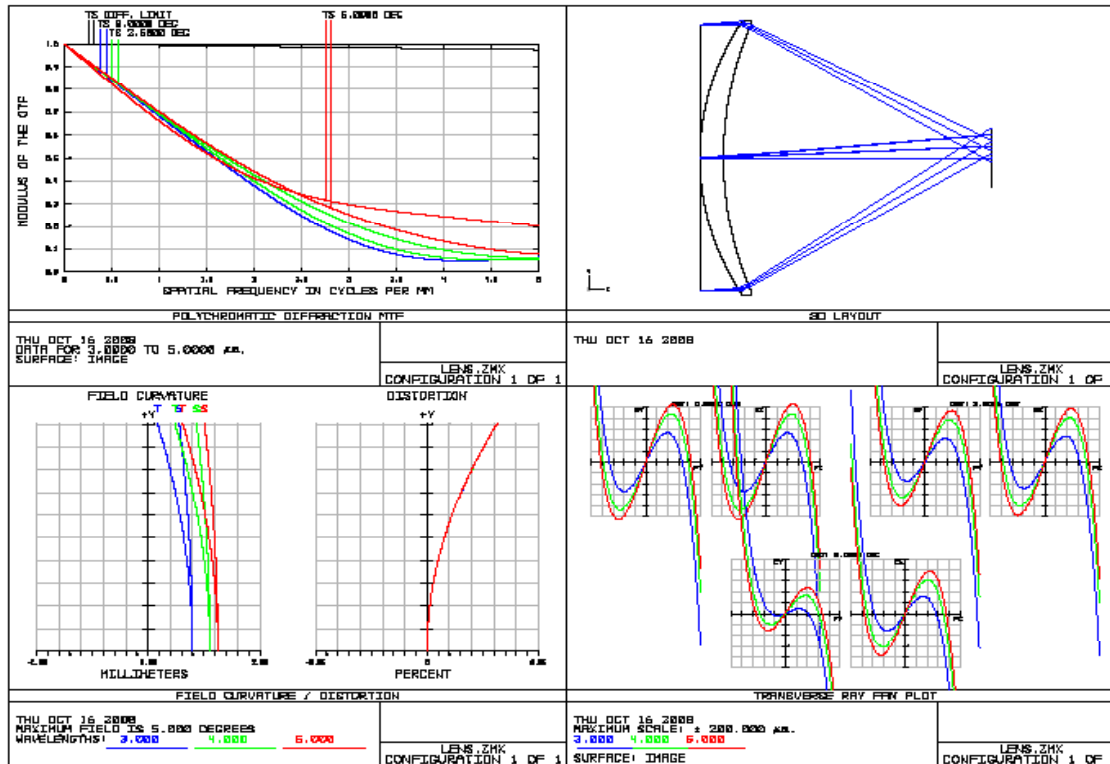
Mittleres IR 3..5 μm :

FIR : 7..12 μm :

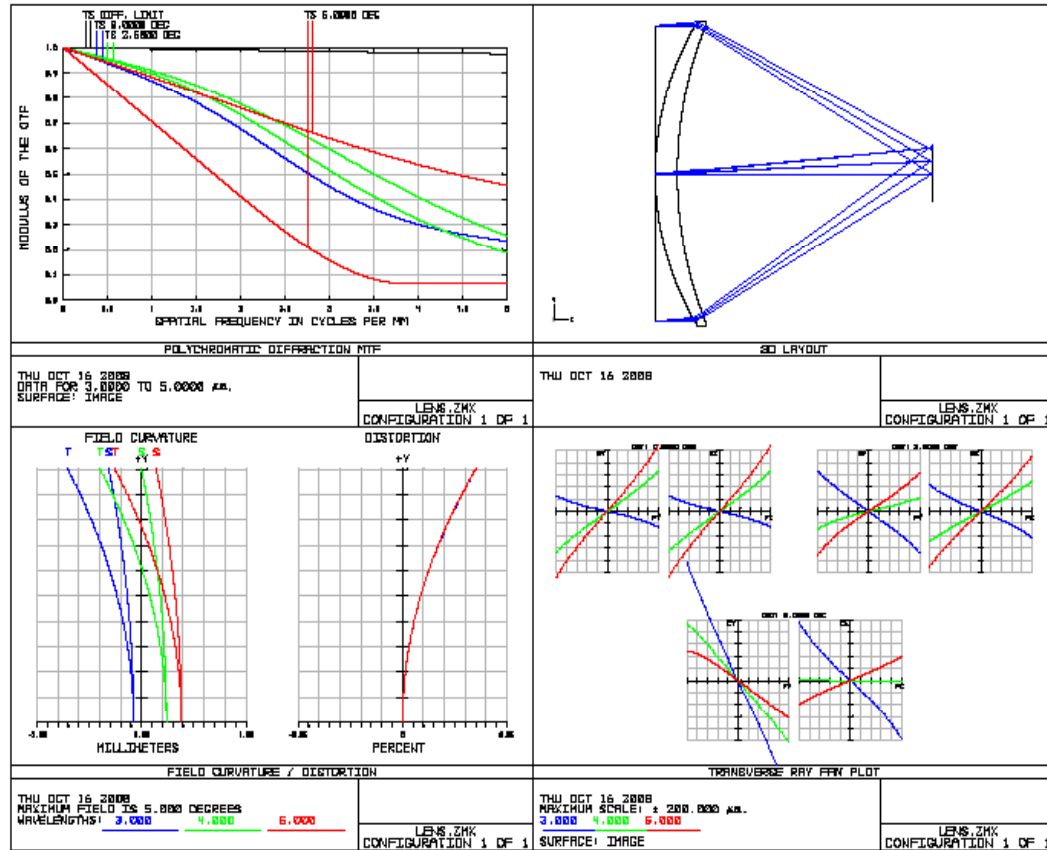
- *Bildwinkel/Verzeichnung*

3. OBJEKTIVTYPEN

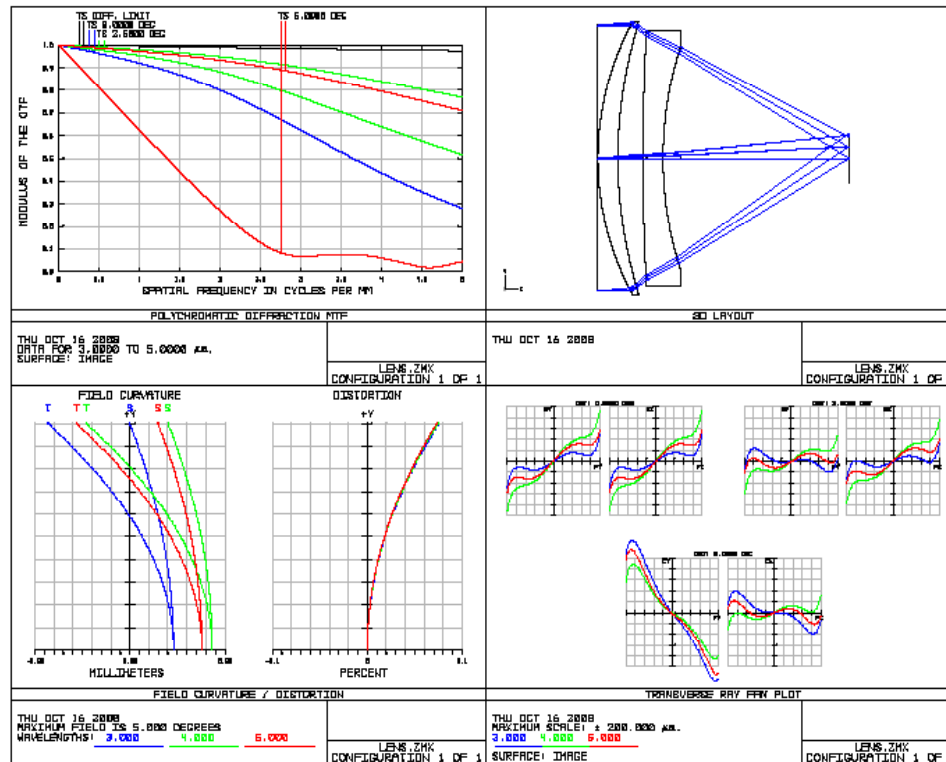
A. Singlet Design



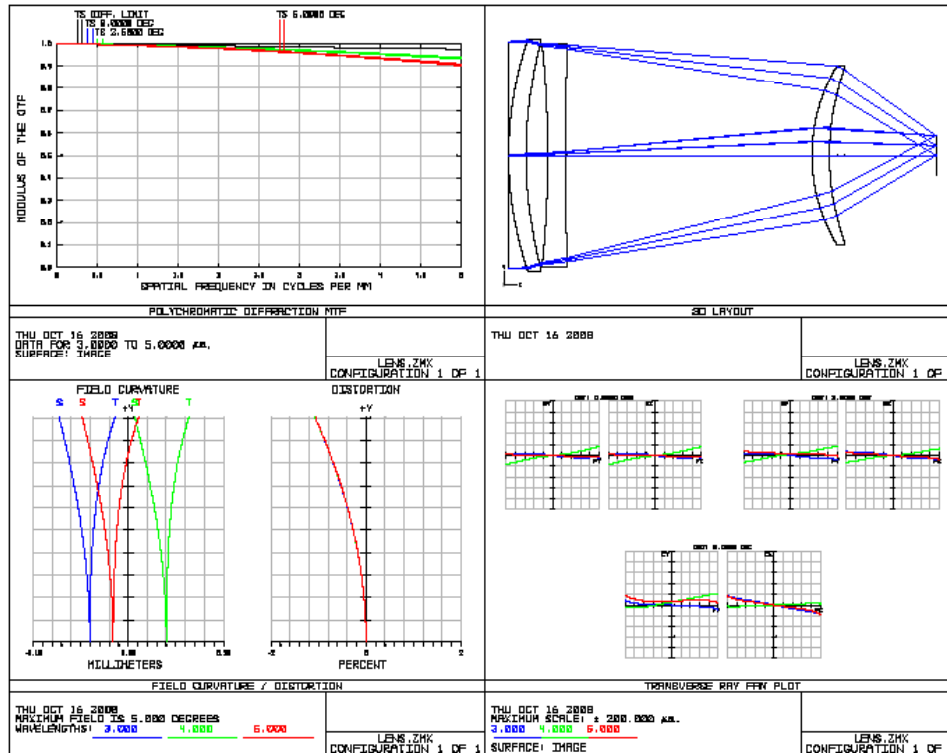
Singlet Asphärisch



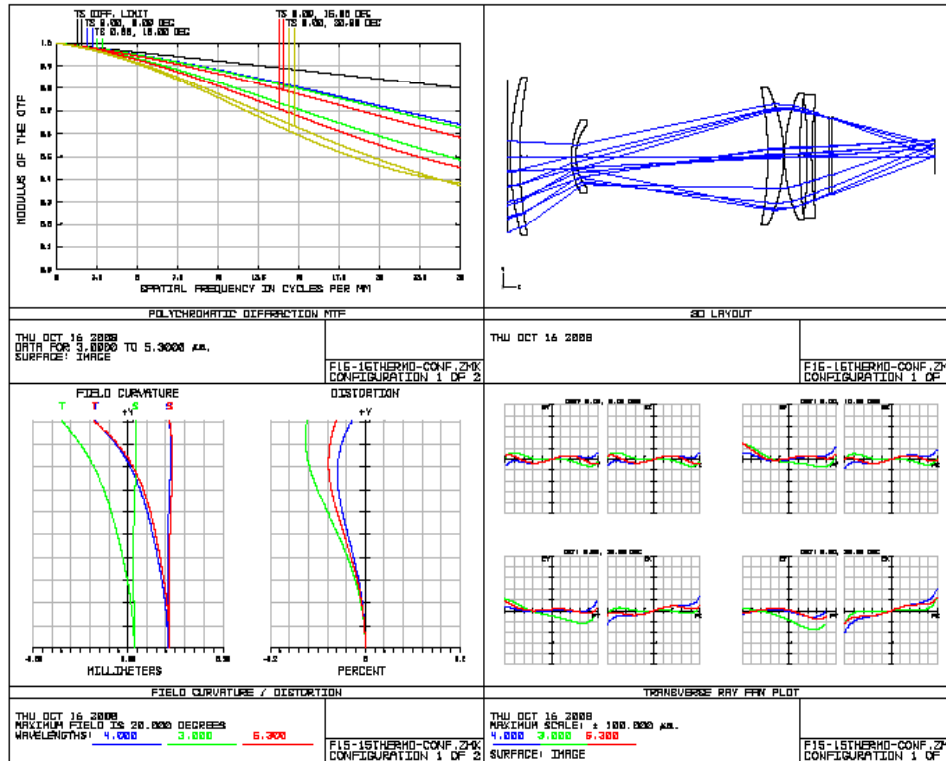
B. Doublet Design



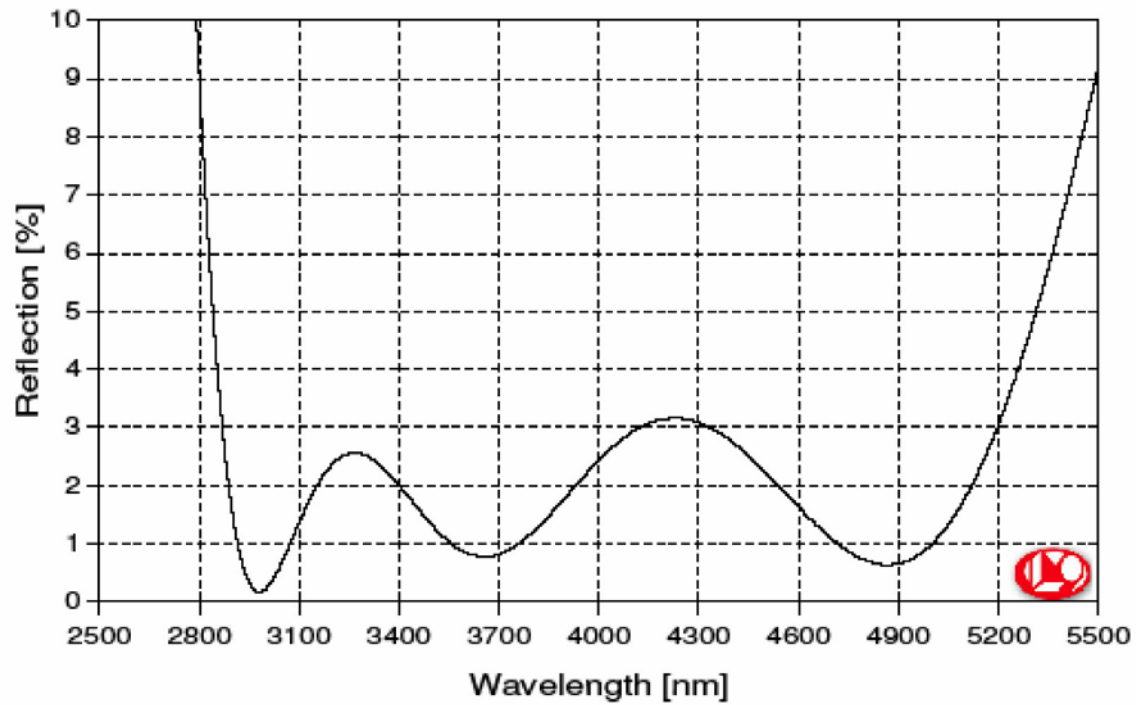
C. Triplet Design



D. Multi-Element Designs

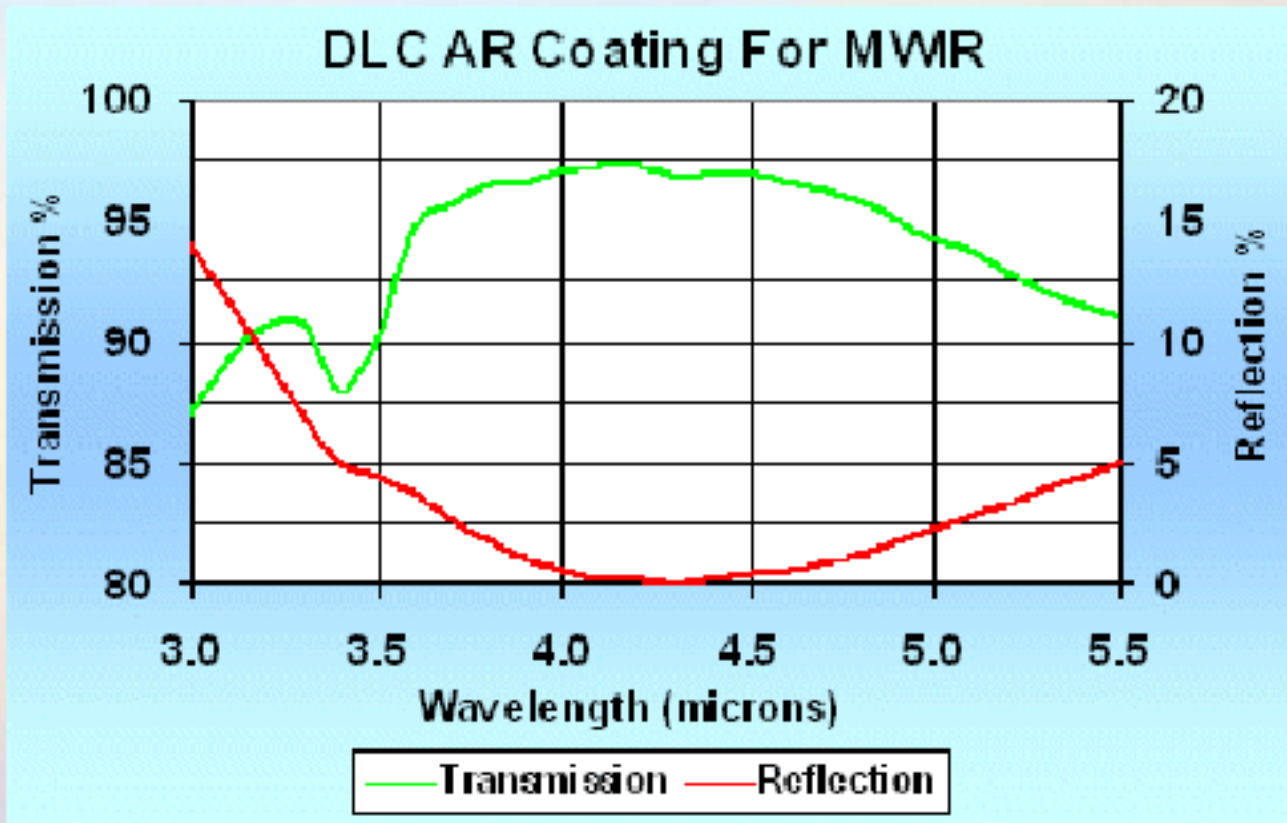


4. AR Beschichtungen

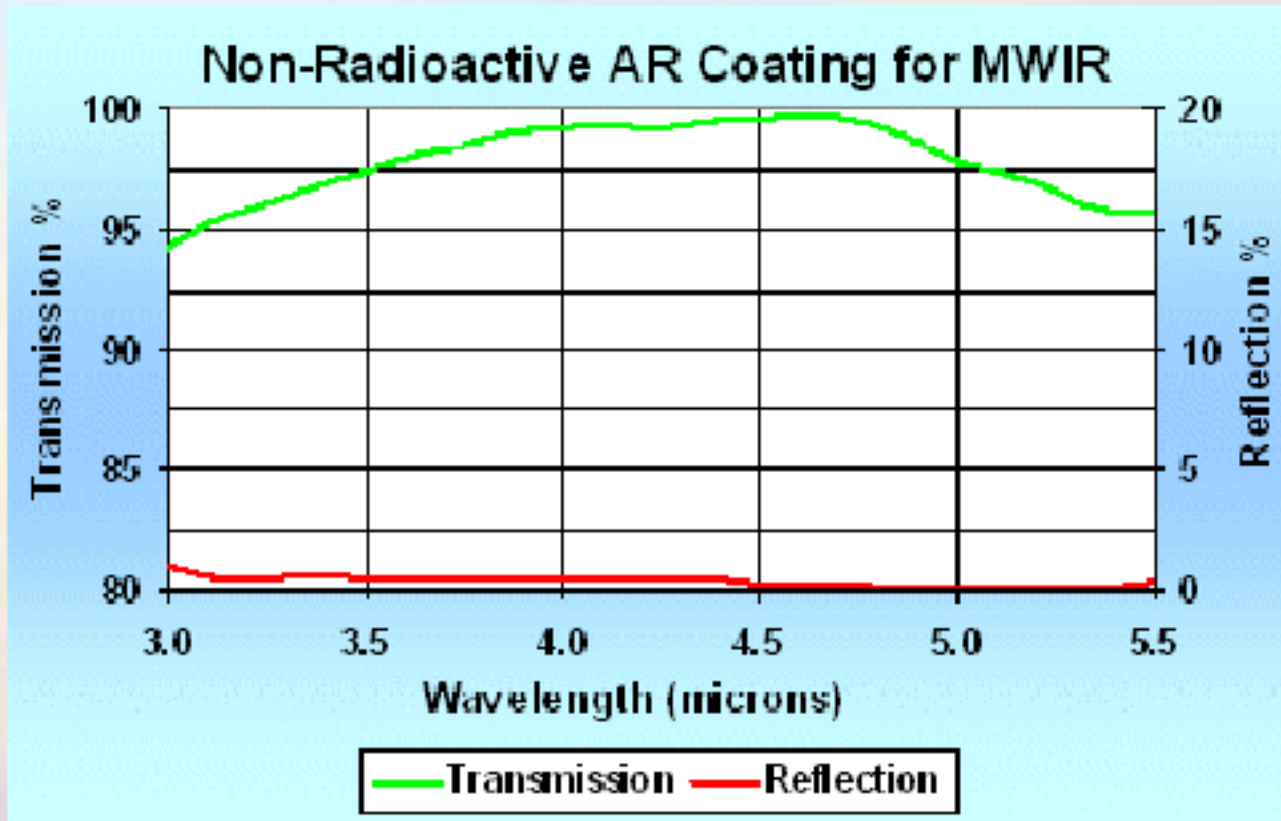


B-04815: AR3000-5000nm/0° Ge

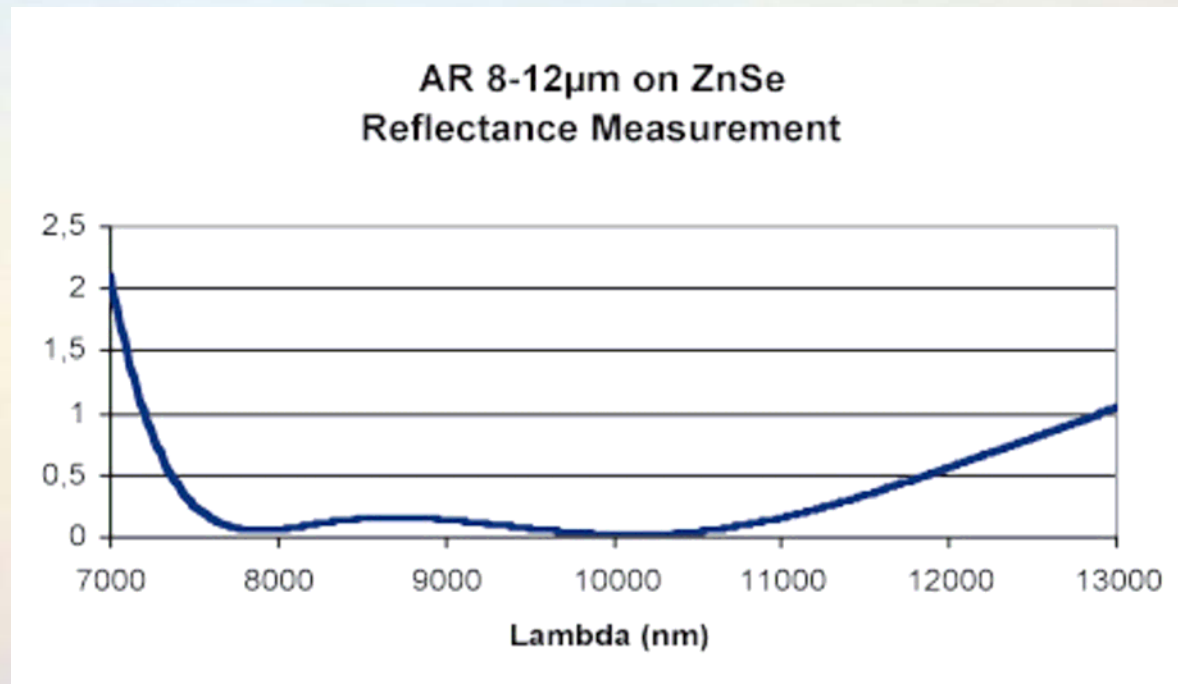
Hard Carbon Coating für MWIR



AR Schicht für MWIR auf ZnSe

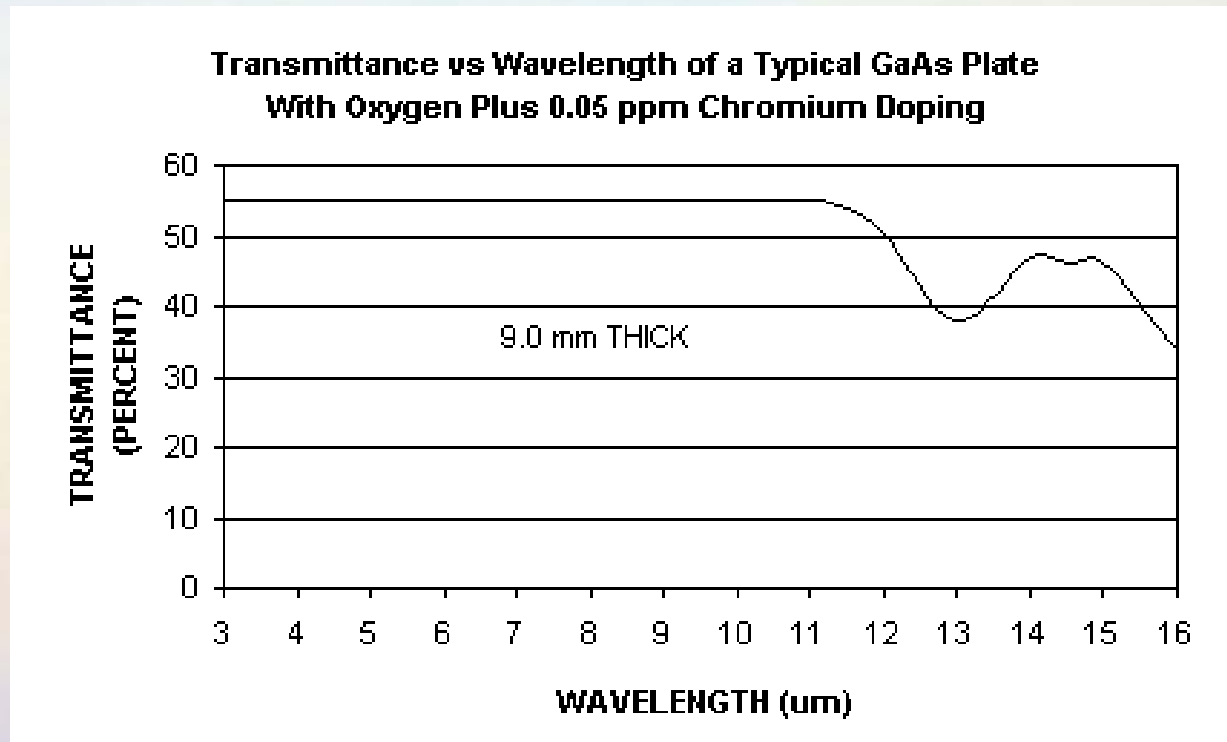


AR Schicht für FLIR auf ZnSe

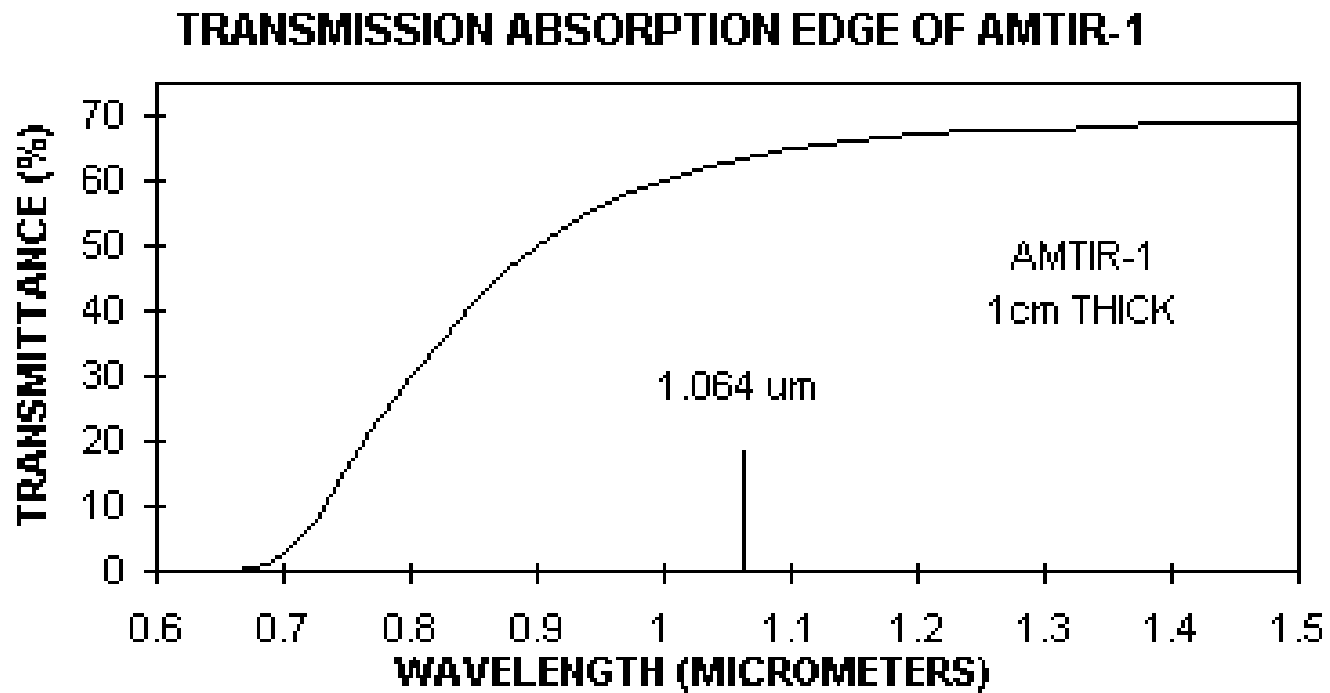


SONDERMATERIALIEN

Gallium Arsenid (GaAs)



Chalcogenid Gläser AMTIR / GASIR



AMTIR-1 AR COATING TWO SIDE

