AGENDA

- Facilities Visit
- Open Discussions

IMPROVEMENT KEYS

SUBSTRATE :

Polishing, Sub-surface defects, Diffusion, Cleanning...

ENVIRONEMENT :

Particuler et Chemical Pollution

COATER :

Chamber, Ions Sources & Targets Material

	Réf.	$^{11}B^+$	$^{12}C^+$	$^{23}Na^+$	$^{24}Mg^+$	$^{27}Al^+$	$^{39}K^+$	$^{40}Ca^+$	$^{52}Cr^+$ (SiC_2^+)	$^{63}Cu^+$	$^{64}Zn^+$	Int. Tot. des impuretés
0 Å ↓ 30 Å	01-0131 / point 1 (D663P100)	320	3700	1640	-	6640	900	4448	17	46	3	17714
	01-0131 / point 2 (D663P101)	240	980	9130	317	10515	13757	12005	-	71	17	47032
	01-0132 : point 1 (D664P100)	282	5459	2075	-	10131	1001	1657	31	30	6	20672
	01-0132 : point 2 (D664P101)	282	2706	3731	41	16732	2036	2525	-	42	15	28110
0 Å ↓ 100 Å	01-0131 / point 1 (D663P100)	356	7303	1749	-	8506	1569	7531	21	157	5	27197
	01-0131 / point 2 (D663P101)	314	1461	9584	498	12562	15034	15857	-	195	21	55526
	01-0132 : point 1 (D664P100)	358	10009	2084	-	12098	1190	2259	38	135	12	28 183
	01-0132 : point 2 (D664P101)	350	4248	3717	63	18414	2272	3053	-	141	21	32 279
100 Å ↓ 1000 Å	01-0131 / point 1 (D663P100)	8	192	549	-	2311	4288	6382	17	2039	11	15 797
	01-0131 / point 2 (D663P101)	13	271	2204	245	1893	6683	13271	-	2171	16	27 217
	01-0132 : point 1 (D664P100)	17	156	514	-	1976	1482	1192	22	2105	8	7 472
	01-0132 : point 2 (D664P101)	19	170	195	38	1665	1215	1117	-	2105	12	6 536
1000 Å ↓ 4 000 Å	01-0131 / point 1 (D663P100)	7	534	1079	-	3426	1269	231	50	6637	10	13 243
	01-0131 / point 2 (D663P101)	3	429	2106	32	2775	1838	19233	-	7671	9	34 096
	01-0132 : point 1 (D664P100)	3	408	972	-	2564	375	180	69	8045	7	12 623
	01-0132 : point 2 (D664P101)	2	437	373	16	1441	205	179	-	7734	2	10 389
0 Å ↓ 4 000 Å	01-0131 / point 1 (D663P100)	371	8029	3377	-	14243	7126	14144	88	8833	26	56 237
	01-0131 / point 2 (D663P101)	330	2140	13894	775	17230	23555	48811	-	10037	46	116 839
	01-0132 : point 1 (D664P100)	378	10573	3570	-	16638	3047	3631	129	10285	27	48 278
	01-0132 : point 2 (D664P101)	371	4855	4285	117	21520	3692	4349	-	9980	35	49 204

RECHERCHE DES IMPURETES SUR DES SUBSTRATS DE SILICE SUPERPOLIE

SUBSTRATE

MINERAL CONTAMINATIONS

BORE, SODIUM, MAGNESIUM, CALCIUM, POTASSIUM...

METALLIC CONTAMINATIONS

CARBONE, ALUMINIUM, CHROME, CUIVRE, ZINC...

ENVIRONEMENT

ORGANIC CONTAMINATIONS

Di-isoOctylPhtalate (DOP)

Nitrides Organic compounds

Greasy Acids

Irgafos 168

Erucamide (Additifs PE,PP)

Silicone Compounds : PolyDiMethySiloxane

COATER

METALLIC CONTAMINATIONS

Aluminium

Molybdenum

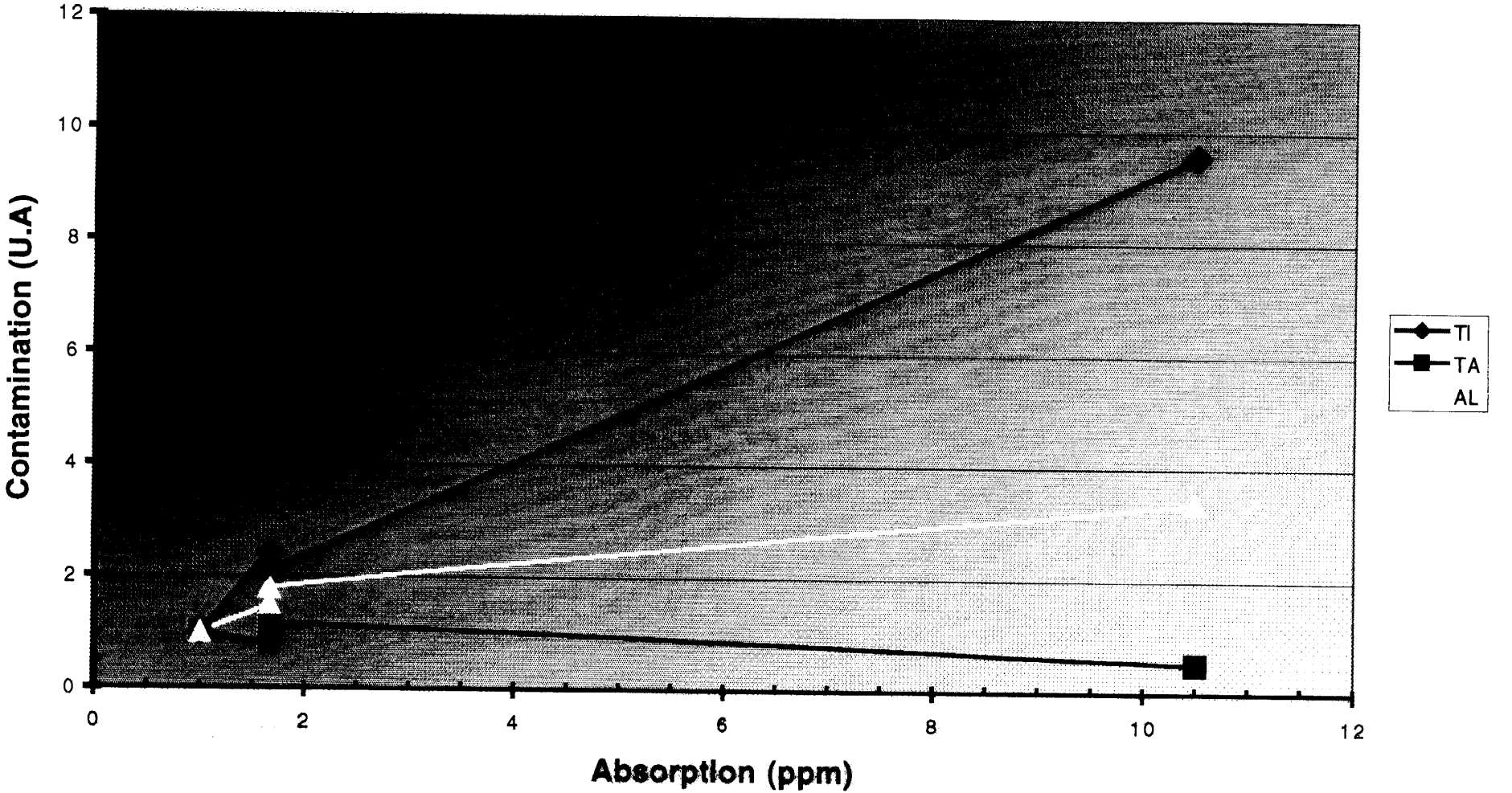
Silicon

Titanium

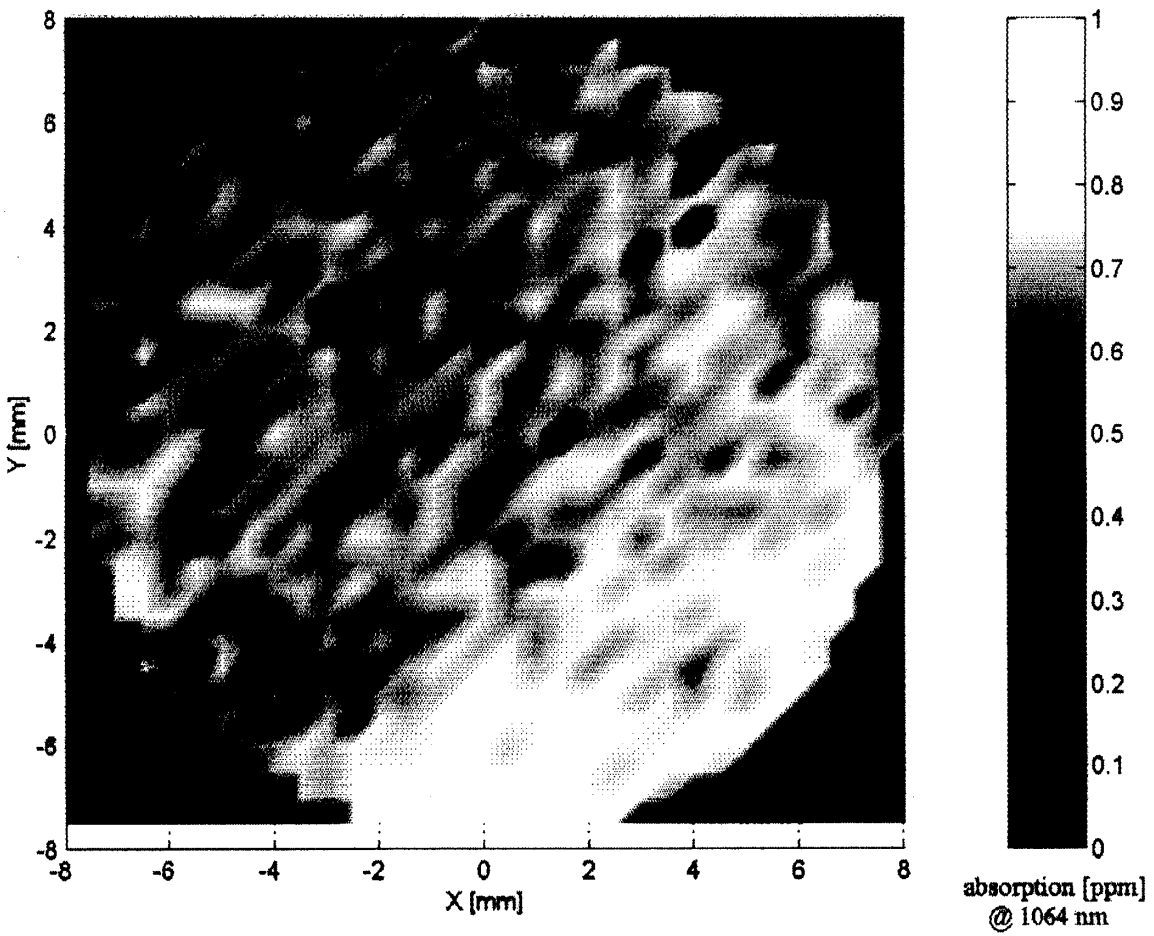
Tantalum

Tungsten

CONTAMINATION METALLIQUE



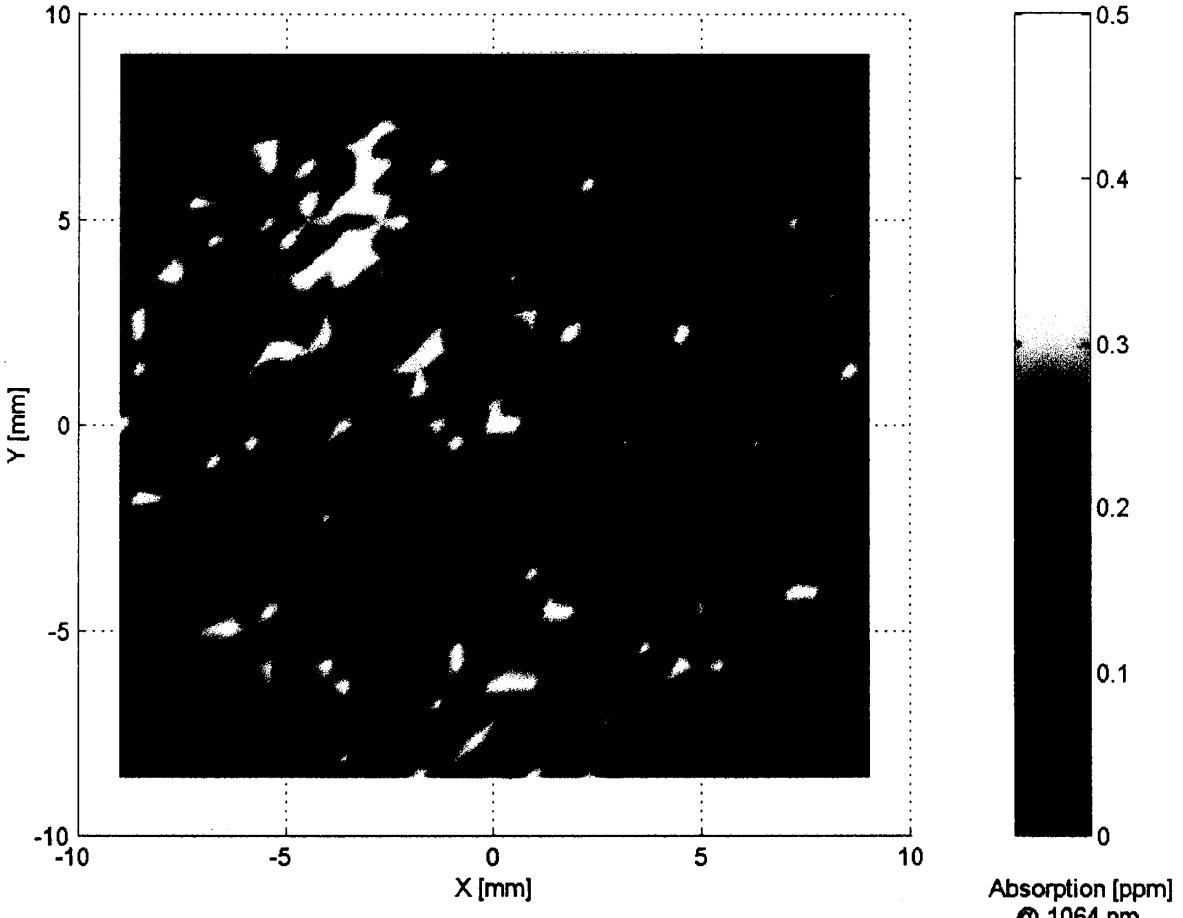
OPTIQUE VIRGO : Amélioration des Matérieux



MIROIR YAG (HB)^10 Réalisé avec une silice améliorée (k=3.7 E-7)

A=0.7 +/- 0.1 ppm sur ∅=16 mm

Absorption @ 1064 nm



mean absorption on ϕ 18 mm: **0.20 ppm.**

- sampling : 450 µm
- resolution : 100 µm
- σ = 0.14 ppm, max = 1.87 ppm
- sensibility : 0.05 ppm