BORIDES

Borides in general are us for wear-resistant films and to produce semi-conducting films.

Borides are being investigated for use as diffusion barriers in both silicon and III-V device technology in multilevel metallization schemes involving aluminum as a second level.

Titanium boride and zirconium boride films increase the life of cutting tools.

Boride films provide neutron-absorbing layers on nuclear fuel pellets Lanthanum boride films are thermionic conductors

BORIDES						
MATERIAL	**FORMULA**	**STANDARD PURITIES**	**THEORETICAL DENSITY g/cm3**	**LISTED MELTING POINT,oC**	**FABRICATION METHOD**	**SUGGESTED APPLICATIONS**
Chromium boride	Cr2B	99.5	6.57	1890	Hot-pressed	
Chromium boride	CrB	99.5	6.11	2050	Hot-pressed	
Chromium boride	CrB2	99.5	5.60	2150	Hot-pressed	
Chromium boride	CrSB3	99.5	6.12	2000	Hot-pressed	Borides in general are us for wear-resistant films and to produce semi-conducting films.
Hafnium boride	HfB2	99.5	11 .1	3250	Hot-pressed	Titanium boride and zirconium boride films increase the life of .cutting tools.

						Boride films provide neutron-absorbing layers on nuclear fuel pellets
Lanthanum boride	LaB6	99.5 -99.9	4.68	2100	Hot-pressed	Lanthanum boride films are thermionic conductors
Molybdenum boride	Mo2B	99.5	9.30	1495	Hot-pressed	Borides are being investigated for use as diffusion barriers in both silicon and III-V device technology in multilevel metallization schemes involving aluminum as a second level
Molybdenum boride	MoB	99.5	8.77	1083	Hot-pressed	
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Molybdenum boride	Mo2Bs	99.5	7.48	1063	Hot-pressed	
Niobium boride	NbB	99.5	7.60	3727	Hot-pressed	
Niobium boride	NbB2	99.5	7.00	2222	Hot-pressed	
Tantalum boride	TaB	99.5	14.2	156.2	Hot-pressed	
Tantalum boride	TaB2	99.5	12.6	1536	Hot-pressed	
Titanium boride	TiB2	99.5	4.53	327.4	Hot-pressed	
Tungsten bori~e	W2B	99.5	17.1	651.0	Hot-pressed	
Tungsten boride	WB	99.5	16.0	1245	Hot-pressed	
Vanadium	VB	99.5	5.28	2610	Hot-pressed	

boride						
Vanadium boride	VB2	99.5	5.10	1453	Hot-pressed	
Zirconium boride	ZrB2	99.5	6.09	2468	Hot-pressed	