

Katz Burke Matte- Δ 6

Lab 4-Back to the Flux Capacity

KB Matte

Original

070522-1

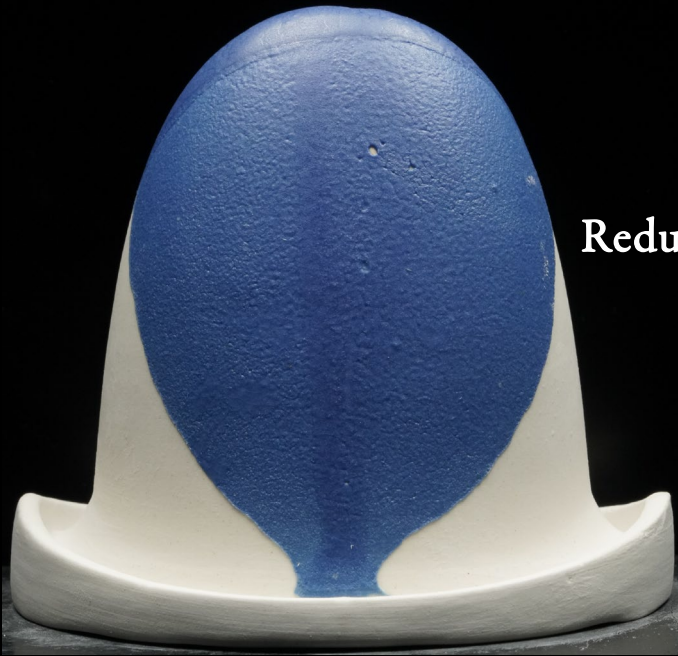
Neph Sy	19.71
Whiting	16.76
EPK	34.85
Flint	12.91
3134	15.77
Cobalt Carbonate	1.01
Water	100



1-3 Second Dip



2-3 Second Dips

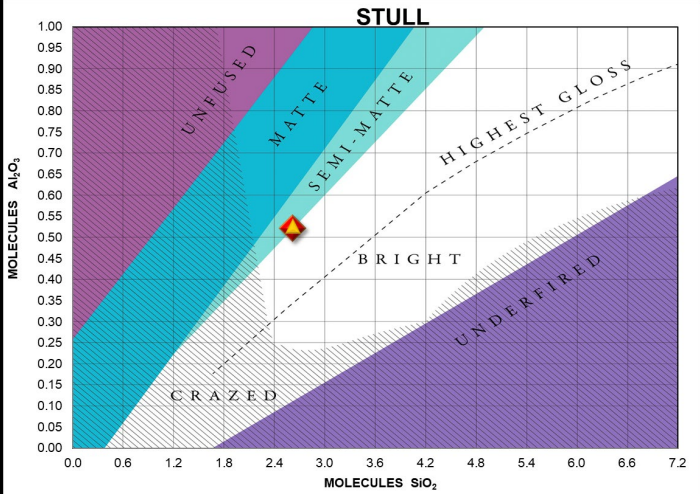


Reduction



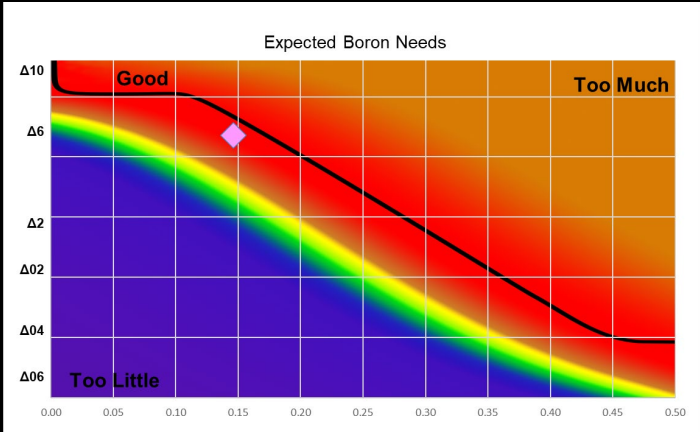
UMF

SiO ₂ :Al ₂ O ₃ Ratio 4.97 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.01	CaO 0.75
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.54	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 4.97 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.53	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.00	CaO 0.73
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
Materials
Workshop

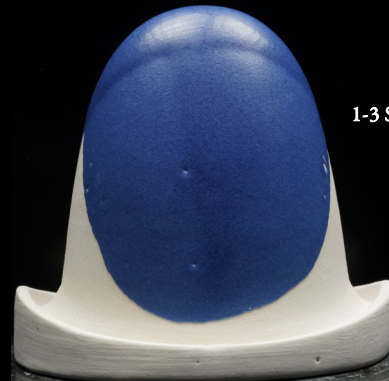
Lab 4-Alkali Metals-Oxidation



070522-1



070522-34



070522-35

1-3 Second Dip



070522-36



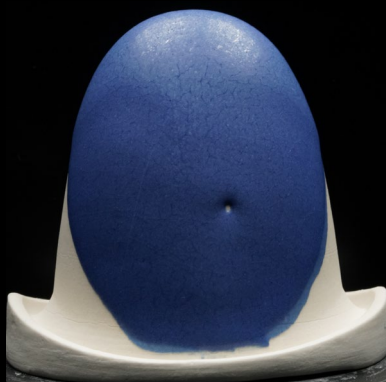
070522-37



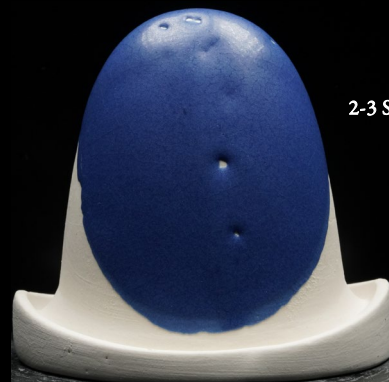
070522-38



Original (Neph Sy)



w/Minspar



w/ G200 EU

2-3 Second Dips



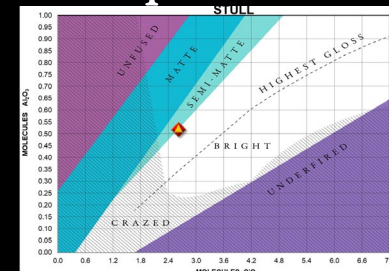
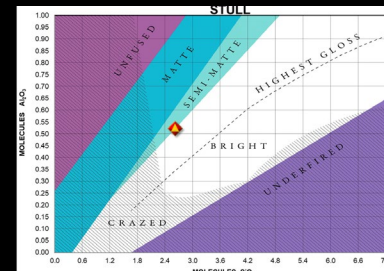
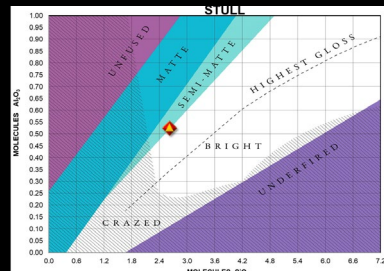
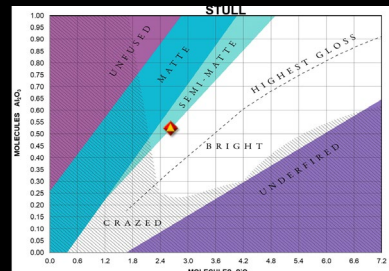
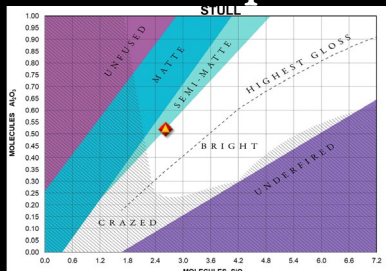
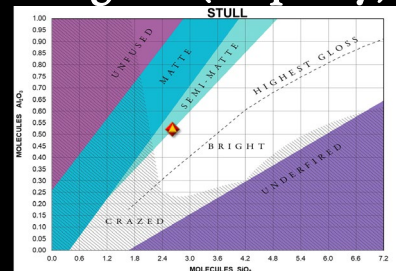
w/Custer



w/Mahavir



w/Spodumene



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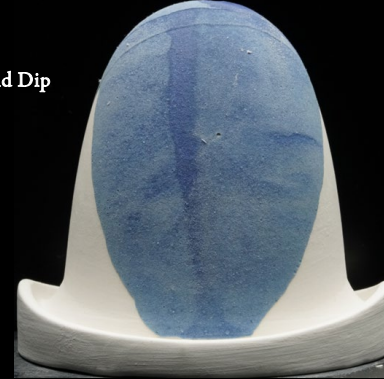
Lab 4-Alkali Metals-Oxidation



070522-1



070522-40



070522-42

1-3 Second Dip



Original (Neph Sy)

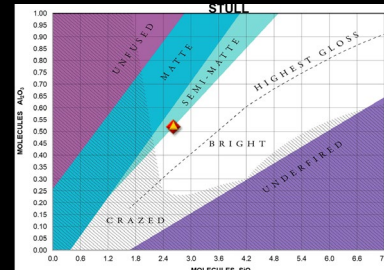
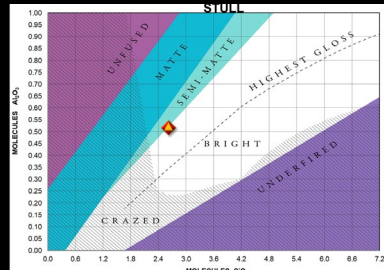
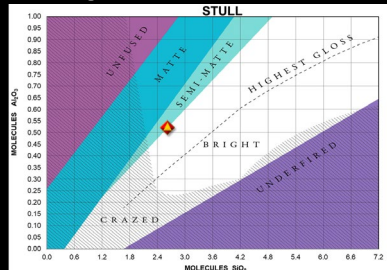


w/Frit 3110



w/Lithium Carb

2-3 Second Dips



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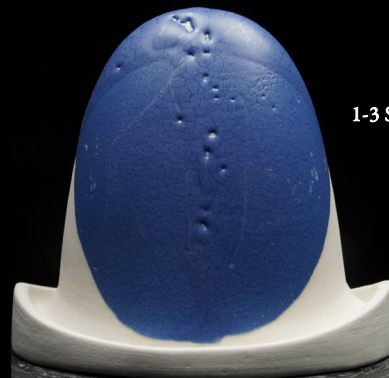
Lab 4-Alkali Metals-Oxidation



070522-1



070522-34



070522-35

1-3 Second Dip



070522-36



070522-37



070522-38



Original (Neph Sy)



w/Minspar



w/ G200 EU

2-3 Second Dips



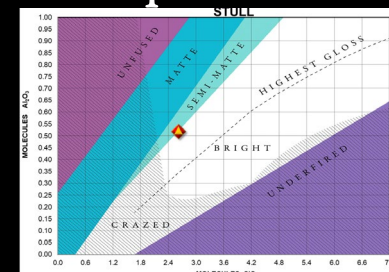
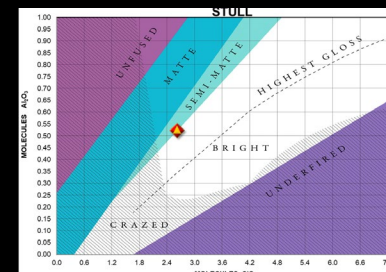
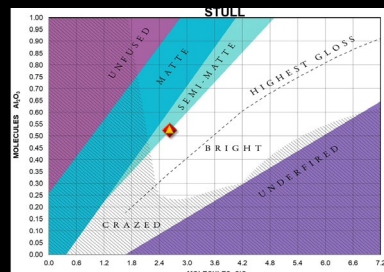
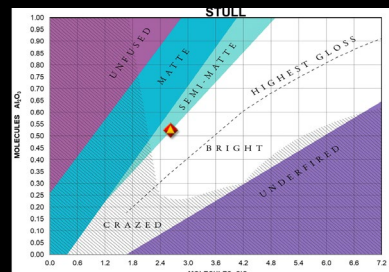
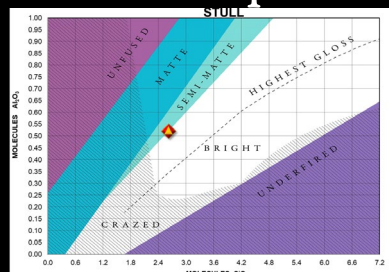
w/Custer



w/Mahavir



w/Spodumene

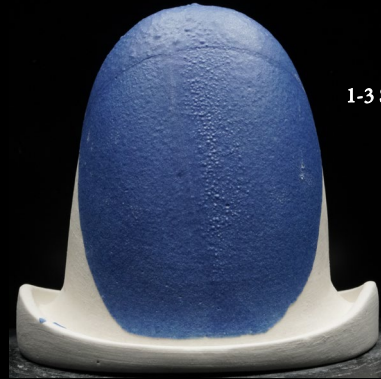


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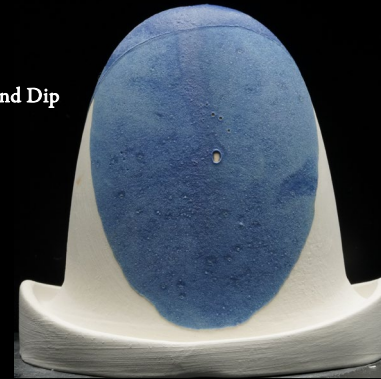
Lab 4-Alkali Metals-Oxidation



070522-1



070522-40



070522-42

1-3 Second Dip



Original (Neph Sy)

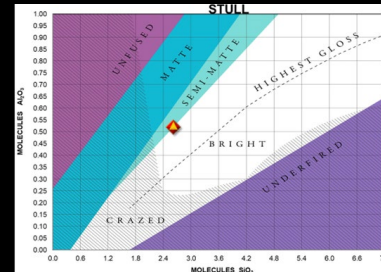
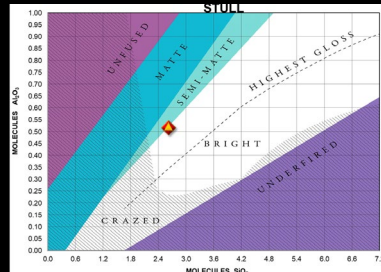
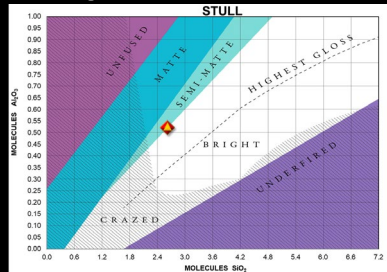


w/Frit 3110



w/Lithium Carb

2-3 Second Dips



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Lab 4-Alkaline Earth-Oxidation



070522-1



070522-43



070522-44

1-3 Second Dip



070522-45



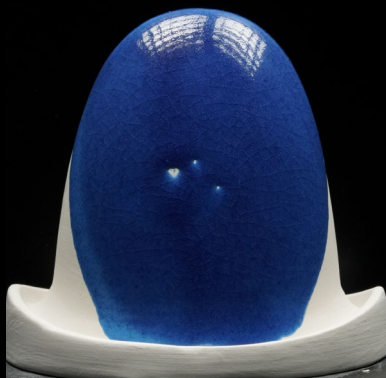
070522-46



070522-47



Original (W)



w/Talc



w/Mag Carb

2-3 Second Dips



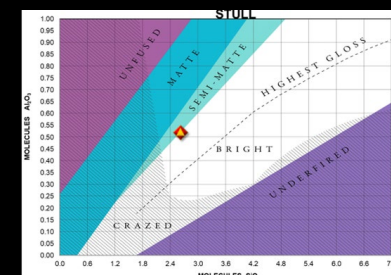
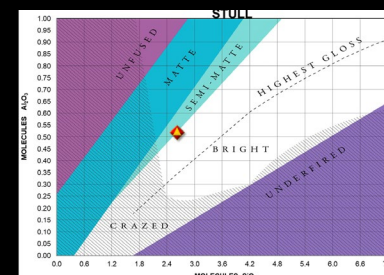
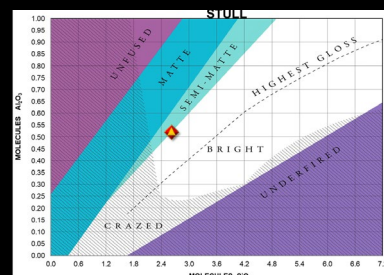
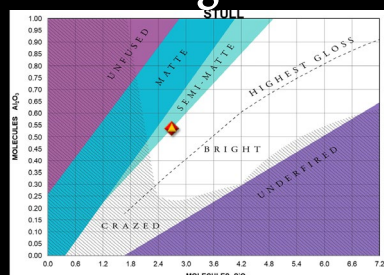
w/Dolomite



w/Wollastonite



w/Strontium Carb



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Lab 4-Alkaline Earth-Oxidation



070522-1



070522-48



070522-49



070522-50

1-3 Second Dip



Original (W)



w/Barium Carb

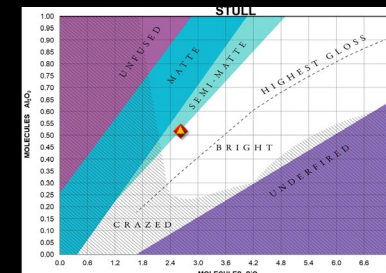
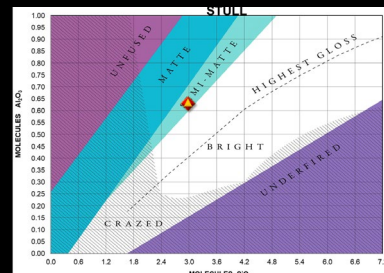
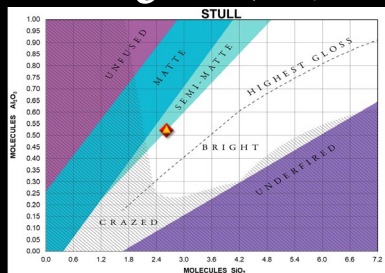


w/Zinc Oxide



w/Bone Ash

2-3 Second Dips



Ceramic
Materials
Workshop

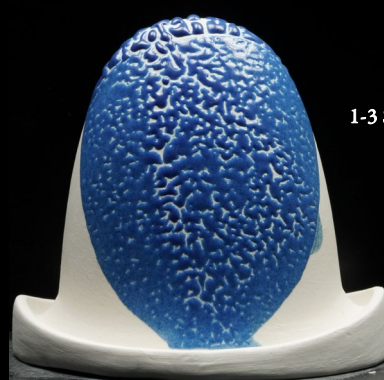
Lab 4-Alkaline Earth-Reduction



070522-1



070522-43



070522-44

1-3 Second Dip



070522-45



070522-46



070522-47



Original (W)



w/Talc



w/Mag Carb

2-3 Second Dips



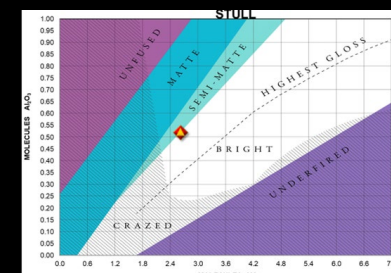
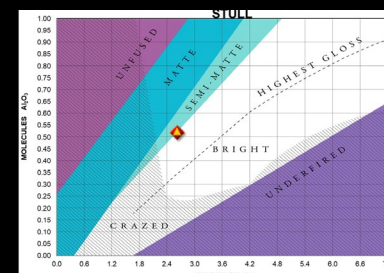
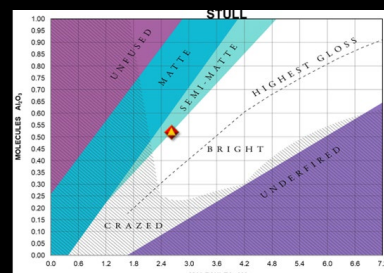
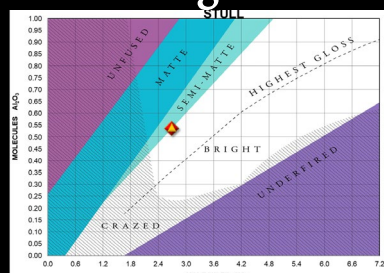
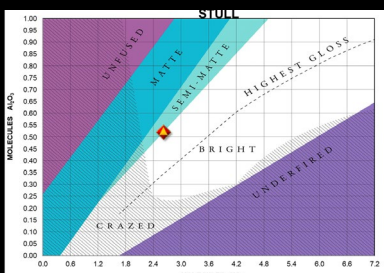
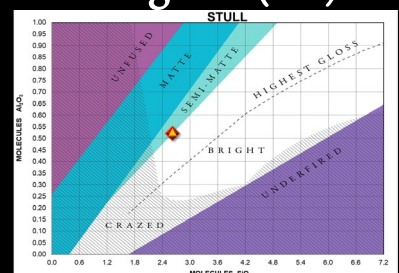
w/Dolomite



w/Wollastonite



w/Strontium Carb



Ceramic
Materials
Workshop

Lab 4-Alkaline Earth-Reduction



070522-1



070522-48



070522-49



070522-50

1-3 Second Dip



Original (W)



w/Barium Carb

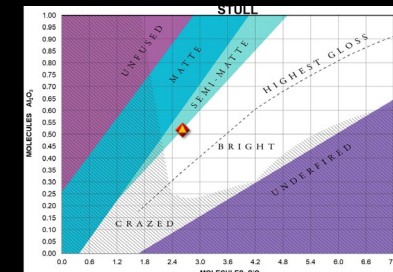
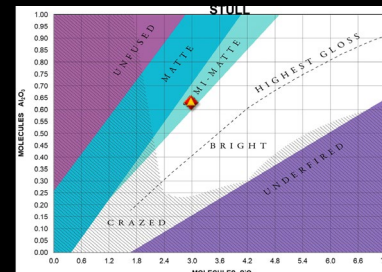
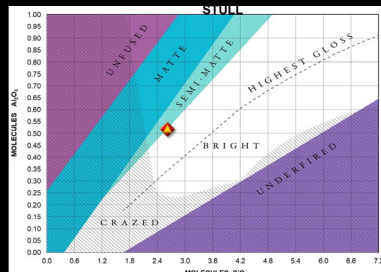
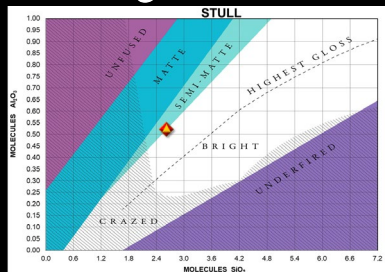


w/Zinc Oxide



w/Bone Ash

2-3 Second Dips



Ceramic
Materials
Workshop

KB Matte

Original

070522-1

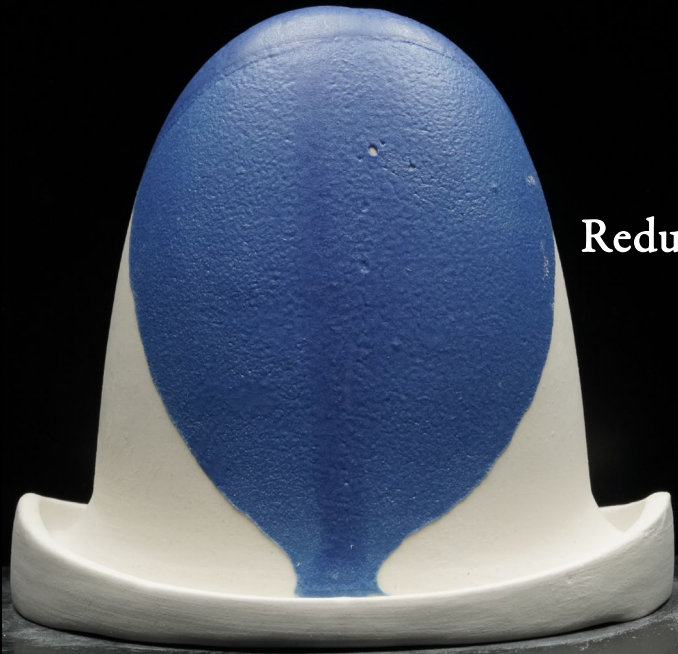
Neph Sy	19.71
Whiting	16.76
EPK	34.85
Flint	12.91
3134	15.77
Cobalt Carbonate	1.01
Water	100



1-3 Second Dip



2-3 Second Dips

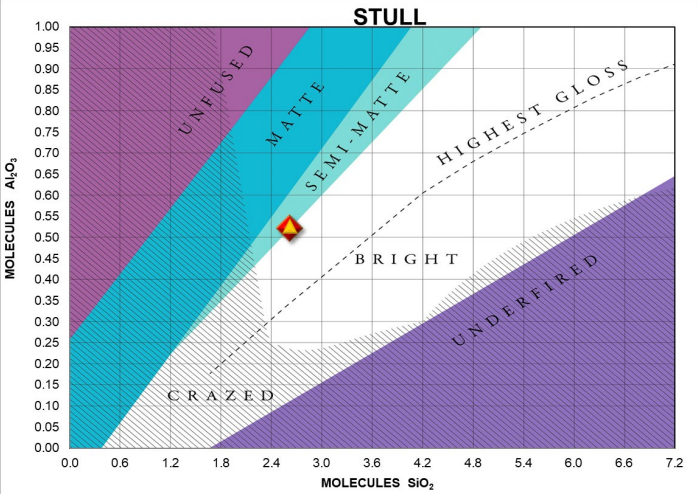


Reduction



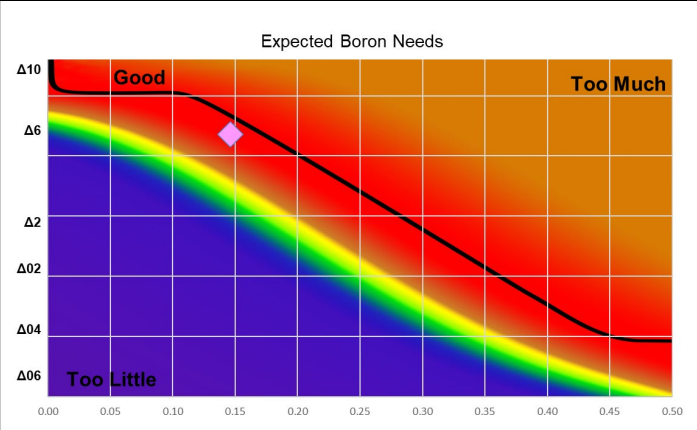
UMF

SiO ₂ :Al ₂ O ₃ Ratio 4.97 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.01	CaO 0.75
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.54	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

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Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03

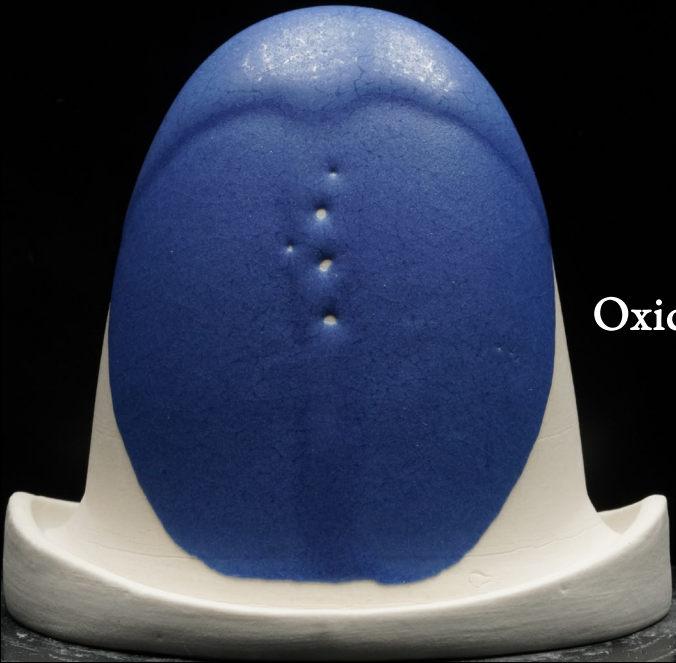


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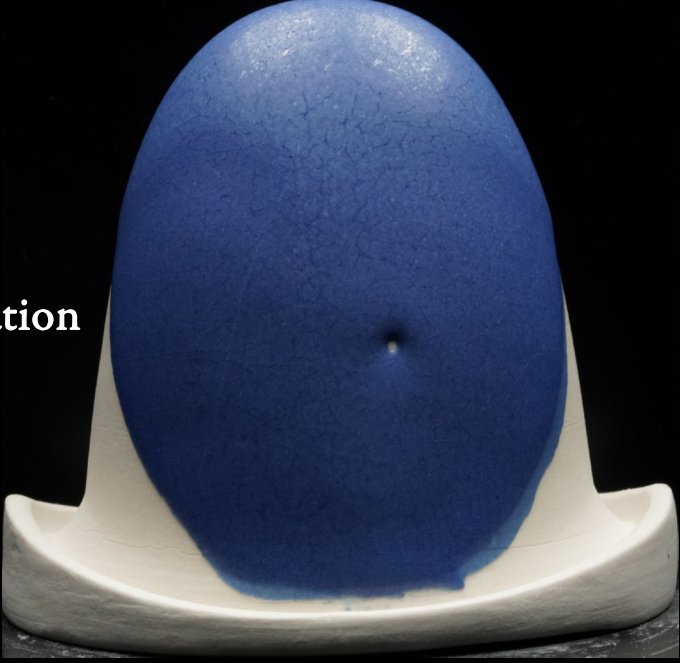
KB Matte

Chemical Match
Minspar Feldspar
070522-34

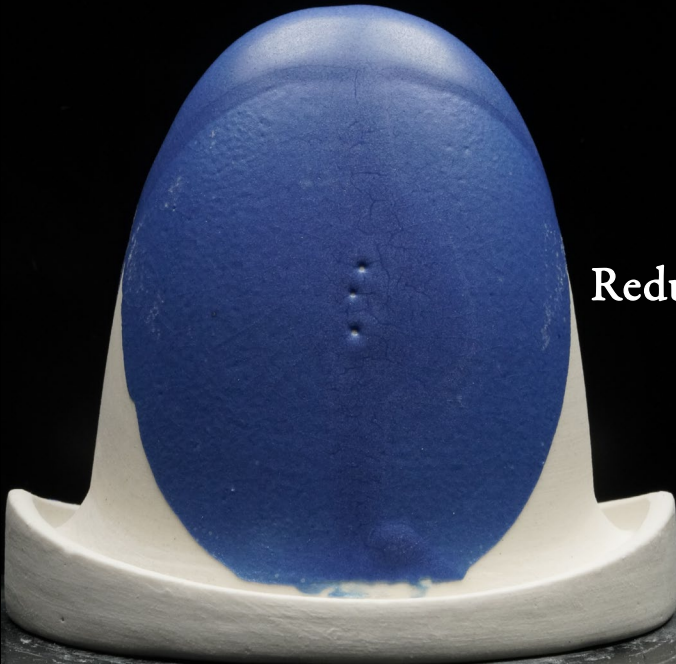
Minspar	28.74
Whiting	16.20
EPK	32.26
Flint	6.49
3134	16.31
Cobalt Carbonate	1.01
Water	110



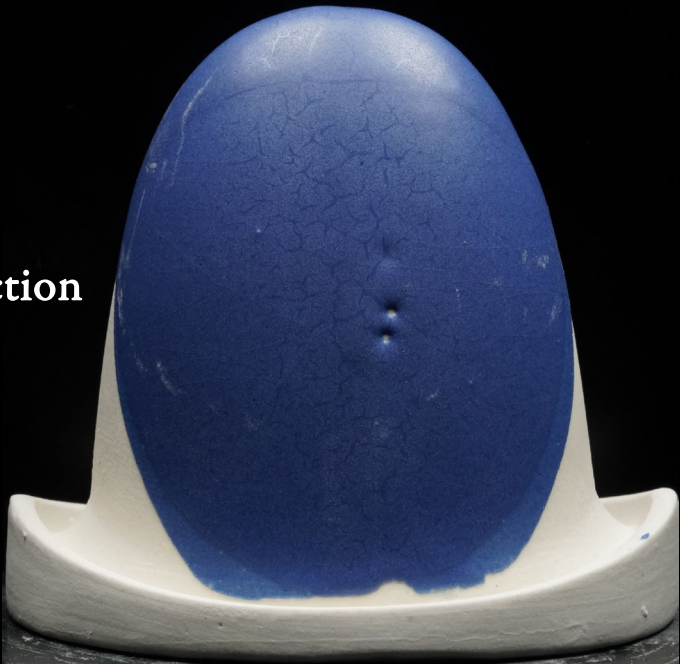
1-3 Second Dip



2-3 Second Dips

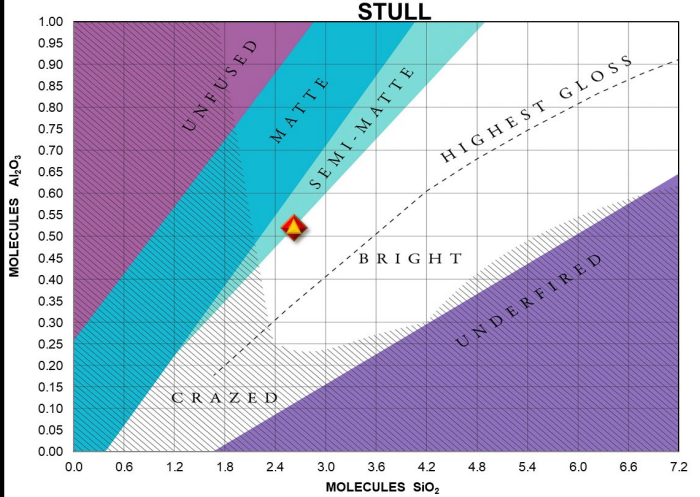


Reduction



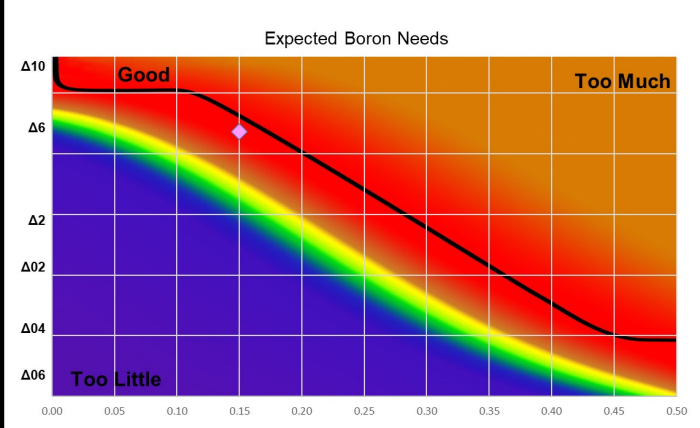
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B ₂ O ₃ 0.15	Al ₂ O ₃ 0.53	Li ₂ O	CuO	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03

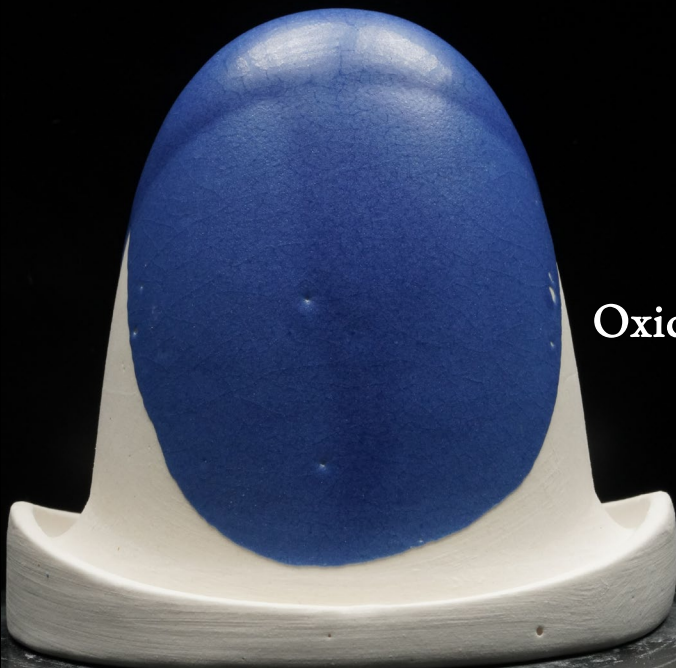


Ceramic
Materials
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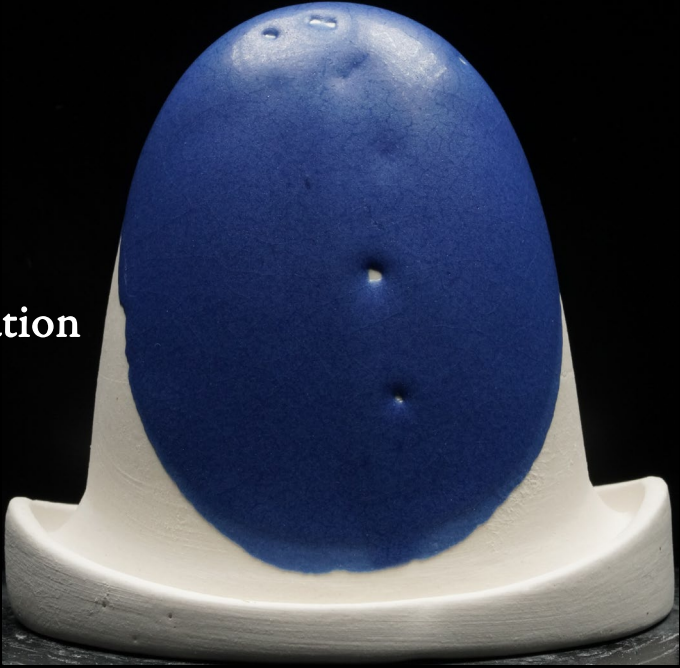
KB Matte

Chemical Match
G200 EU
070522-35

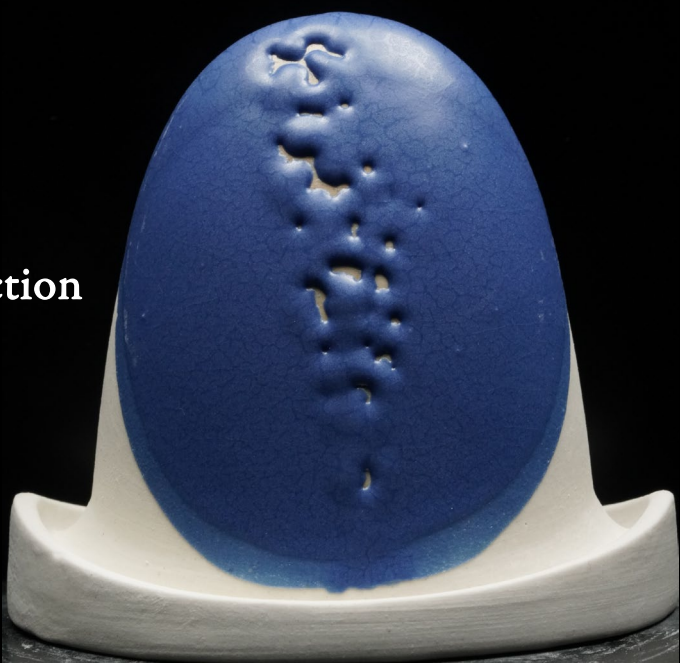
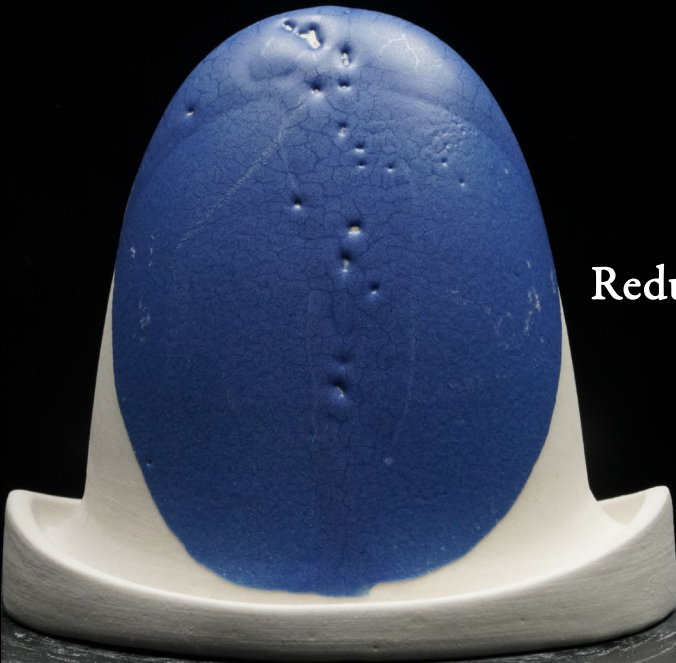
G200 EU	26.73
Whiting	15.98
EPK	34.31
Flint	6.16
3134	16.80
Cobalt Carbonate	1.01
Water	120



1-3 Second Dip

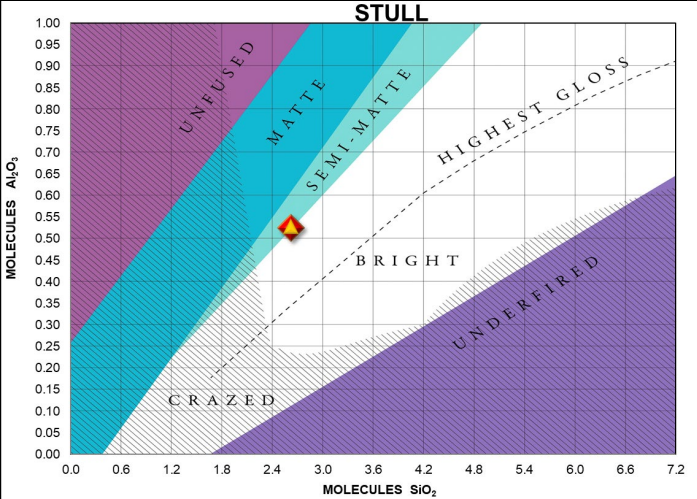


2-3 Second Dips

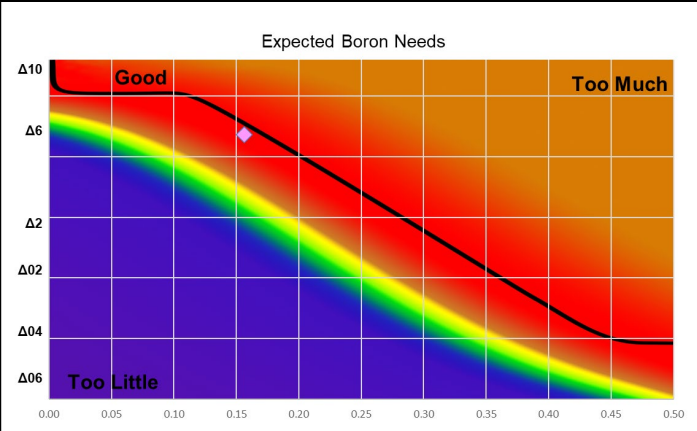


Reduction

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TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



SiO ₂ :Al ₂ O ₃ Ratio 4.95 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.53	Na ₂ O 0.12	K ₂ O 0.10	MgO 0.01	CaO 0.73
B ₂ O ₃ 0.16	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
Materials
Workshop

KB Matte

Chemical Match
Custer Feldspar
070522-36

Custer	28.54
Whiting	16.22
EPK	33.96
Flint	5.09
3134	16.19
Cobalt Carbonate	1.01
Water	120

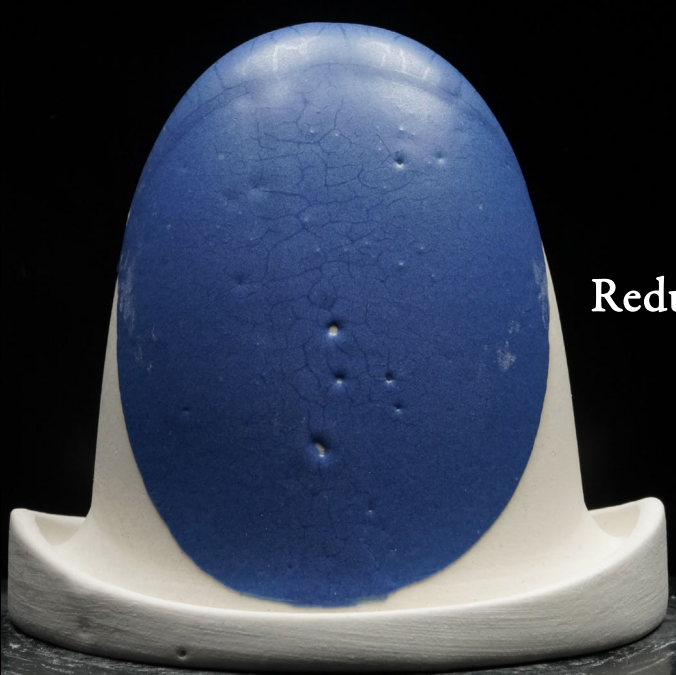


Oxidation

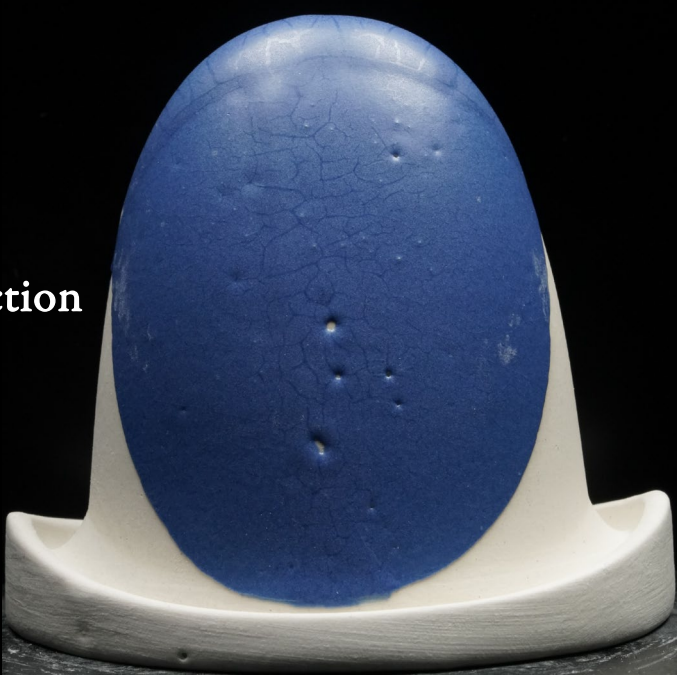
1-3 Second Dip



2-3 Second Dips

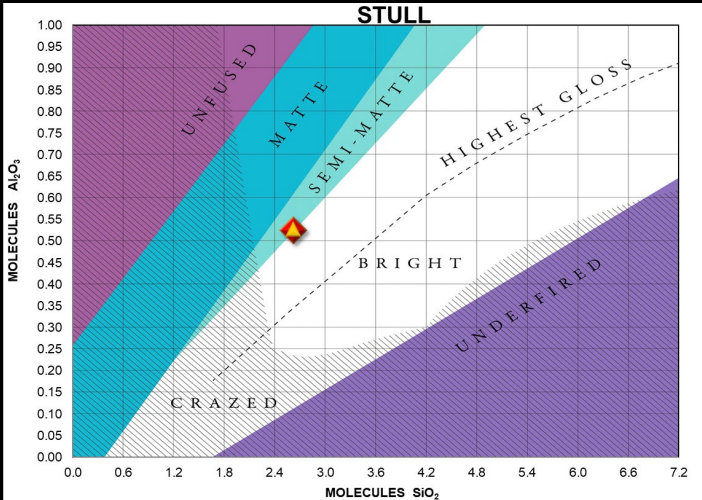


Reduction



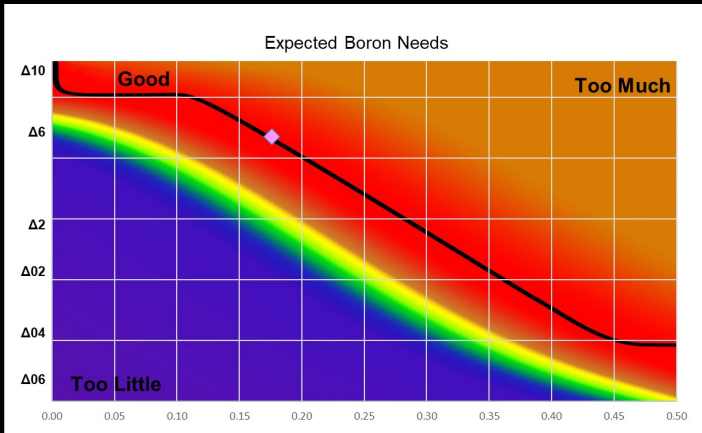
UMF

SiO ₂ :Al ₂ O ₃ Ratio 4.96 :1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.12	K ₂ O 0.11	MgO 0.01	CaO 0.75
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.54	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 4.96 :1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.53	Na ₂ O 0.12	K ₂ O 0.10	MgO 0.01	CaO 0.73
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
Materials
Workshop

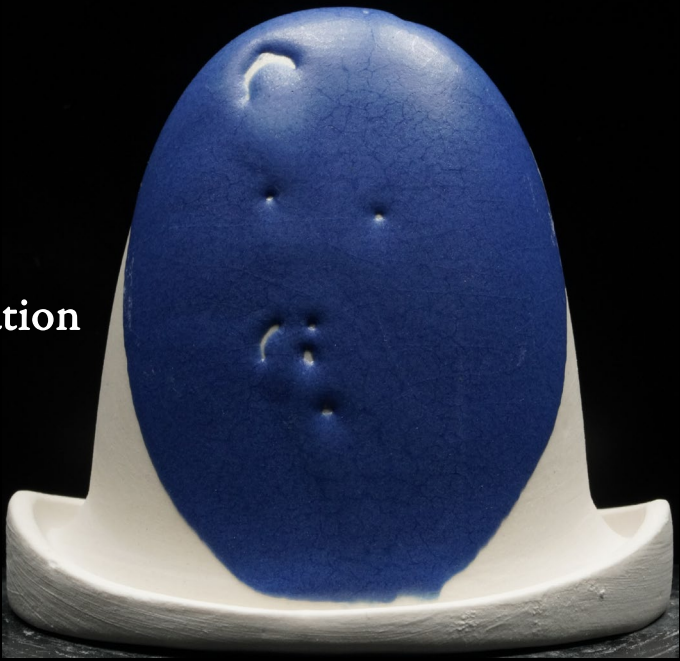
KB Matte

Chemical Match
Mahavir Feldspar
070522-37

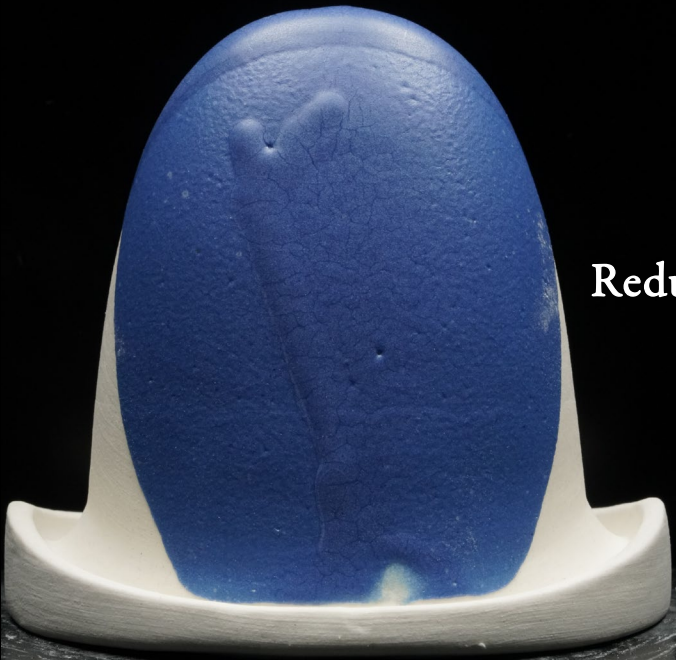
Mahavir	23.41
Whiting	16.45
EPK	35.33
Flint	8.57
3134	16.23
Cobalt Carbonate	1.01
Water	100



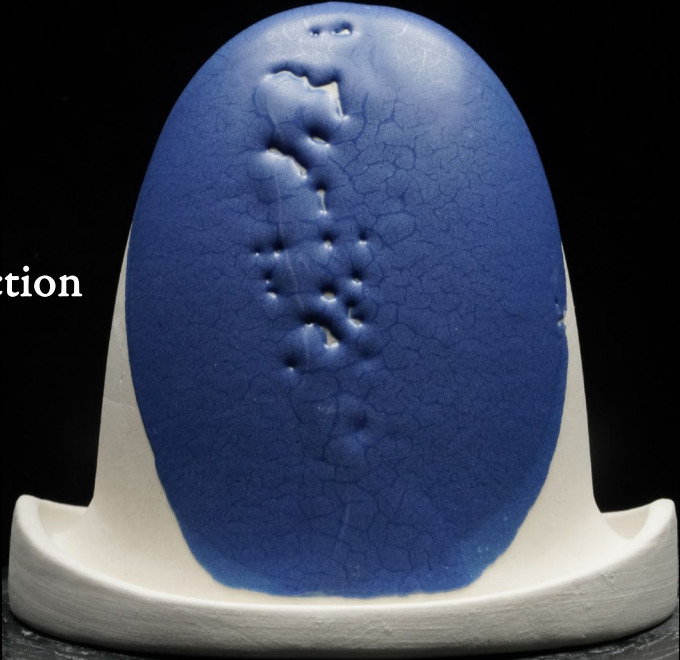
1-3 Second Dip



2-3 Second Dips

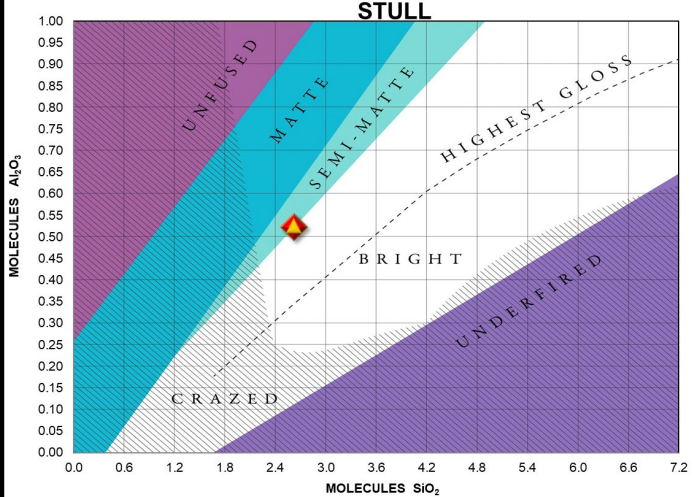


Reduction



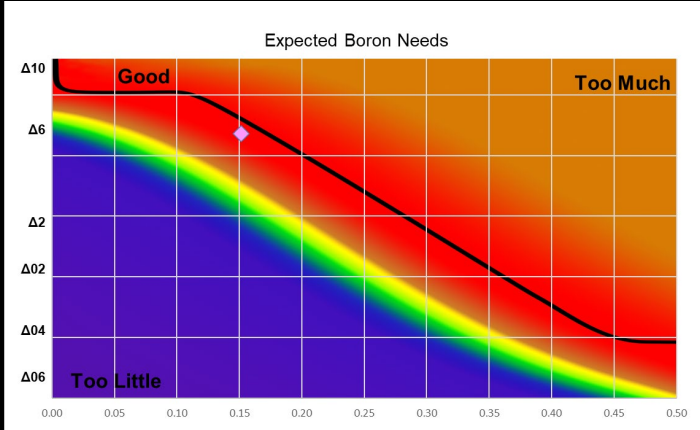
UMF

SiO ₂ :Al ₂ O ₃ Ratio 4.97 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.13	K ₂ O 0.10	MgO 0.01	CaO 0.75
B ₂ O ₃ 0.16	Al ₂ O ₃ 0.54	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 4.97 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.53	Na ₂ O 0.12	K ₂ O 0.10	MgO 0.01	CaO 0.73
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
Materials
Workshop

KB Matte

Chemical Match
Spodumene
070522-38

Spodumene	16.68
Whiting	17.02
EPK	35.14
Flint	14.85
3134	16.31
Cobalt Carbonate	1.01
Water	100



1-3 Second Dip



2-3 Second Dips



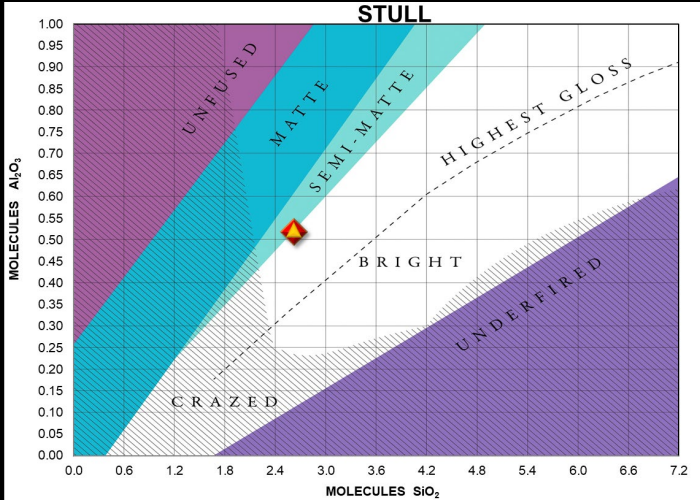
Reduction



Oxidation

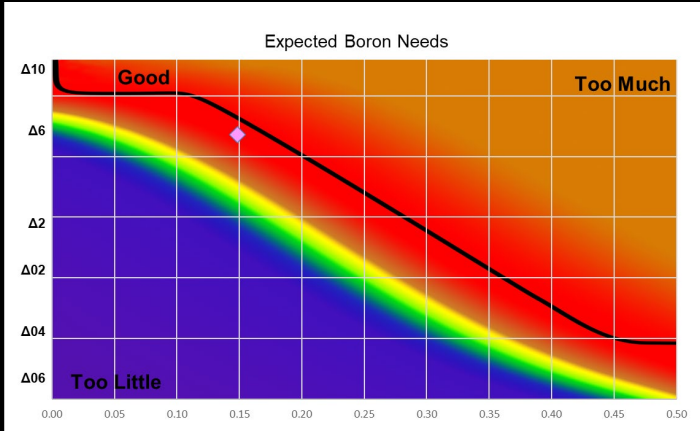
UMF

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.09	K ₂ O 0.01	MgO 0.00	CaO 0.75
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.53	Li ₂ O 0.14	CuO 0.00	SrO 0.00	BaO 0.00
TiO ₂ 0.01	NiO 0.00	Bi ₂ O ₃ 0.00	SnO ₂ 0.00	ZnO 0.00	FeO 0.02
Cr ₂ O ₃ 0.00	ZrO ₂ 0.00	P ₂ O ₅ 0.00		MnO ₂ 0.00	CoO 0.00



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.52	Na ₂ O 0.09	K ₂ O 0.01	MgO 0.00	CaO 0.73
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O 0.13	CuO 0.00	SrO 0.00	BaO 0.00
TiO ₂ 0.01	NiO 0.00	Bi ₂ O ₃ 0.00	SnO ₂ 0.00	ZnO 0.00	FeO 0.02
Cr ₂ O ₃ 0.00	ZrO ₂ 0.00	P ₂ O ₅ 0.00		MnO ₂ 0.00	CoO 0.03



Ceramic
Materials
Workshop

KB Matte

Chemical Match

Frit 3110

070522-40

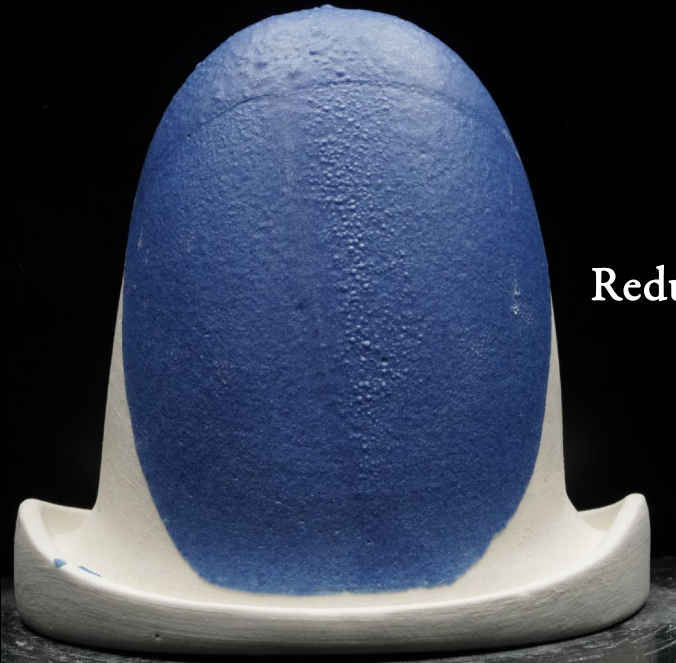
3110	16.16
Whiting	15.64
EPK	44.73
Flint	9.68
3134	13.80
Cobalt Carbonate	1.01
Water	100



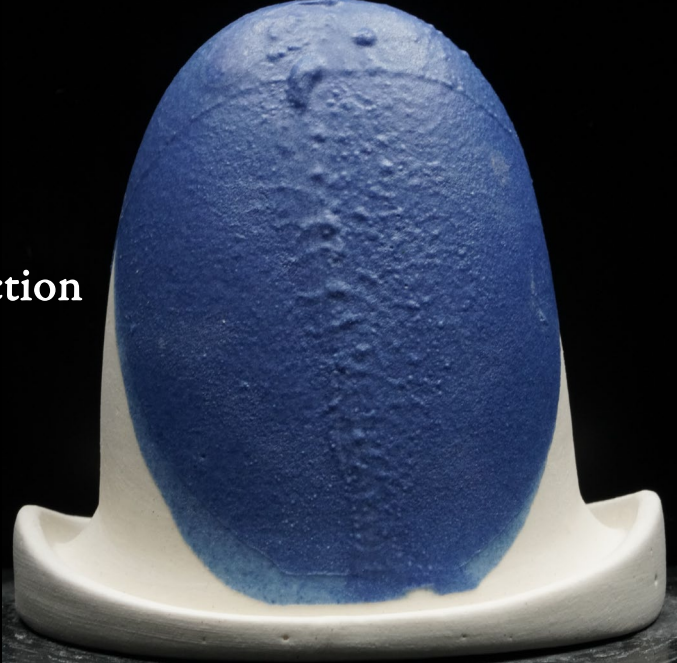
1-3 Second Dip



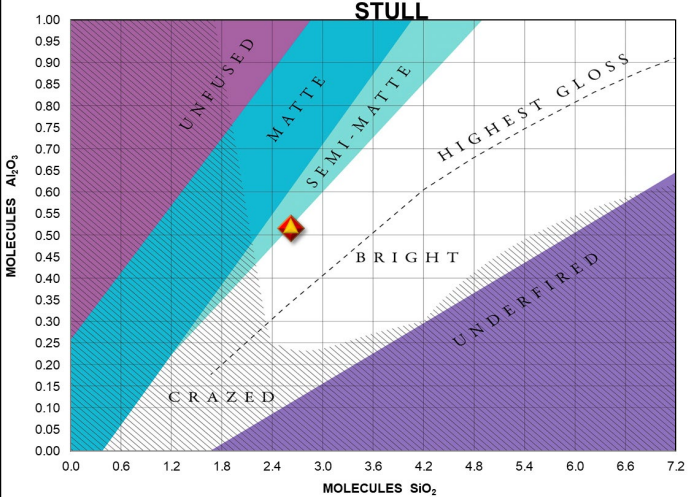
2-3 Second Dips



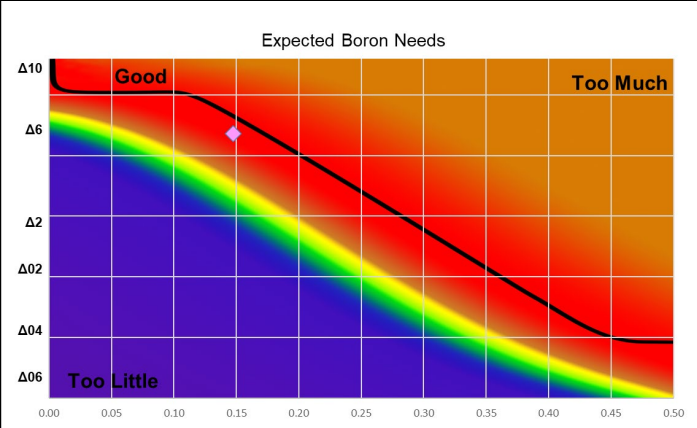
Reduction



UMF SiO ₂ :Al ₂ O ₃ Ratio 5.01 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.21	K ₂ O 0.02	MgO 0.01	CaO 0.75
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.53	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF SiO ₂ :Al ₂ O ₃ Ratio 5.01 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.52	Na ₂ O 0.20	K ₂ O 0.02	MgO 0.01	CaO 0.73
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03

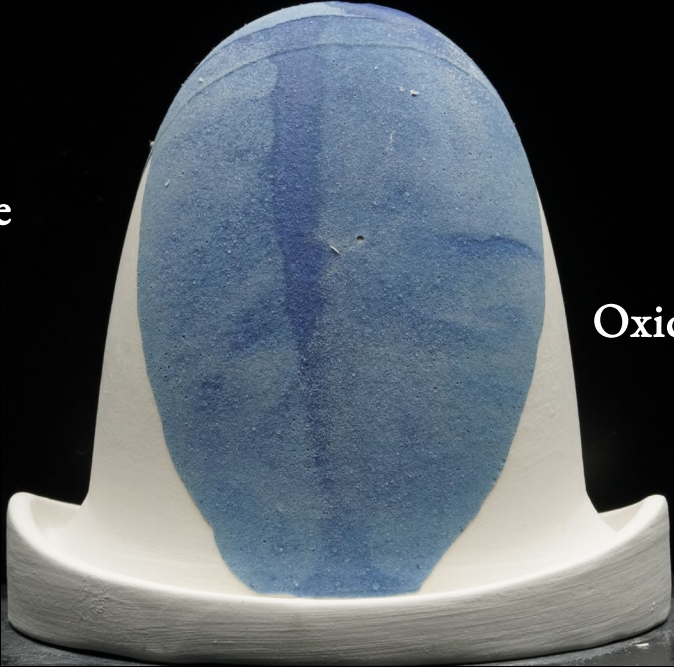


Ceramic
Materials
Workshop

KB Matte

Chemical Match
Lithium Carbonate
070522-42

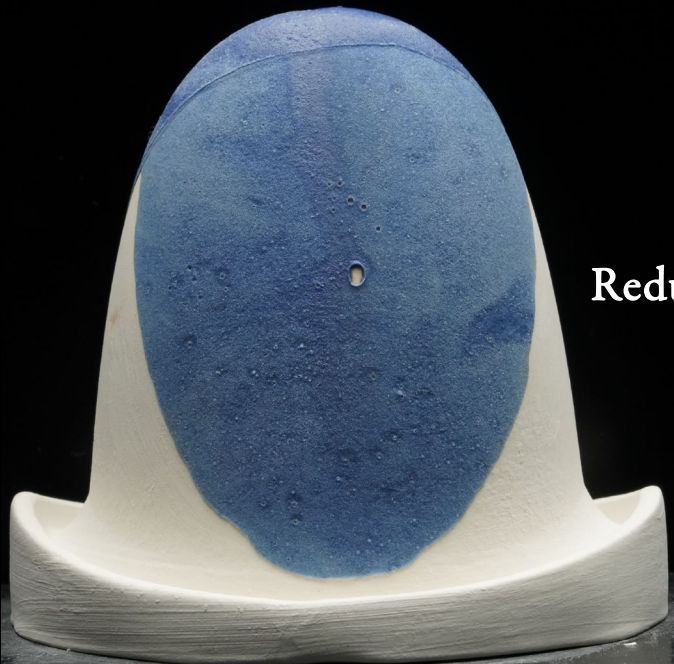
Lithium Carb	2.99
Whiting	16.45
EPK	46.17
Flint	18.90
3134	15.48
Cobalt Carbonate	1.01
Water	90



1-3 Second Dip



2-3 Second Dips

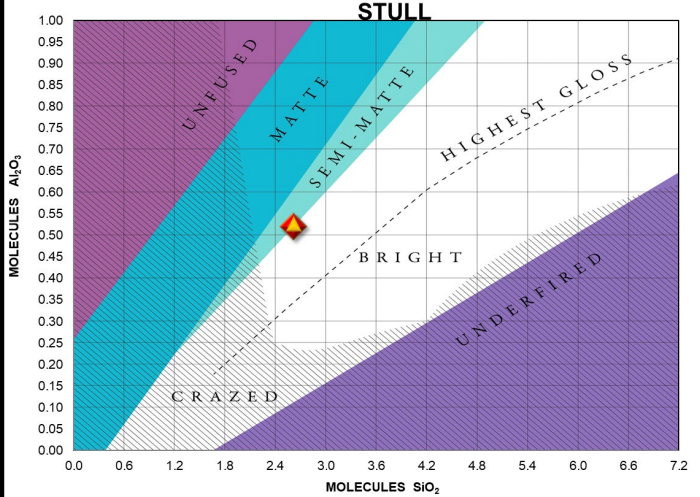


Reduction



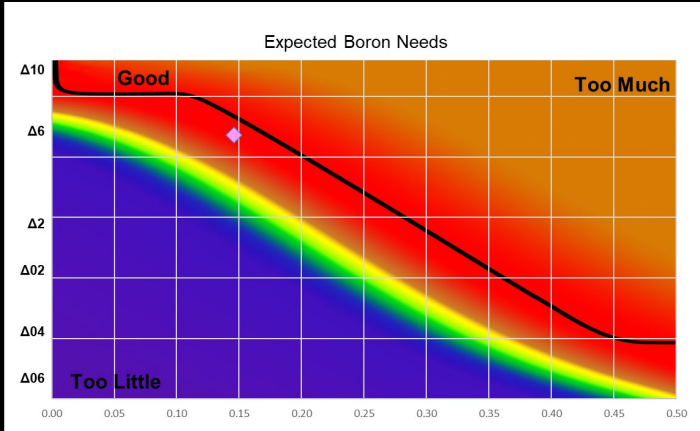
UMF

SiO ₂ :Al ₂ O ₃ Ratio 4.96 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.09	K ₂ O 0.01	MgO 0.01	CaO 0.75
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.53	Li ₂ O 0.13	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 4.96 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.53	Na ₂ O 0.08	K ₂ O 0.01	MgO 0.01	CaO 0.73
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O 0.13	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



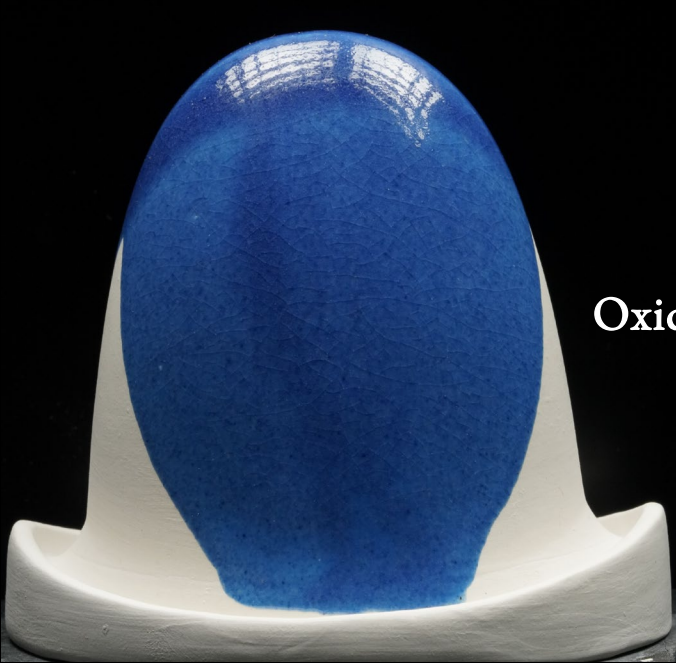
Ceramic
Materials
Workshop

KB Matte

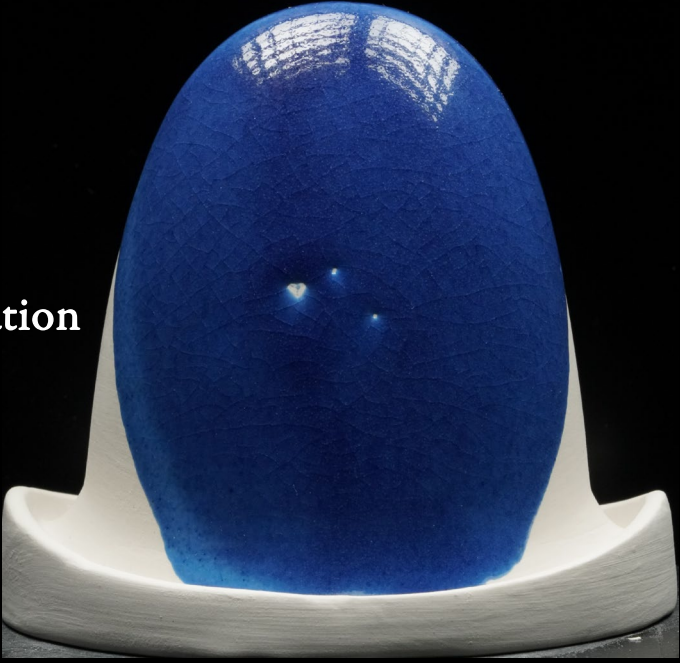
Chemical Match
Talc

070522-43

Neph Sy	20.63
Talc	22.20
EPK	37.77
Flint	1.93
3134	17.46
Cobalt Carbonate	1.01
Water	130



1-3 Second Dip



2-3 Second Dips

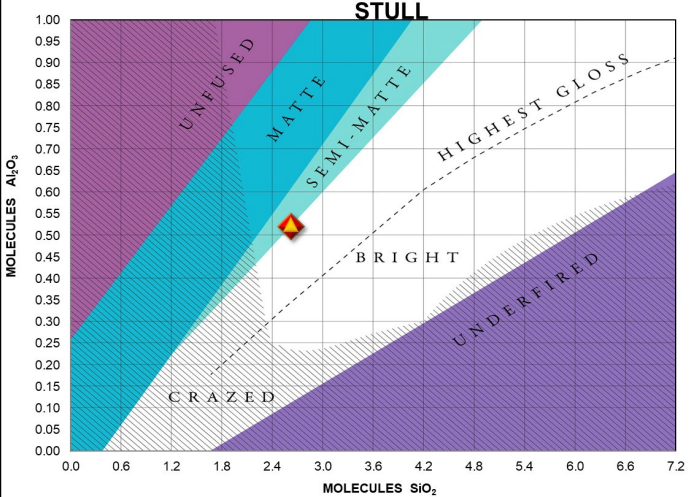


Reduction



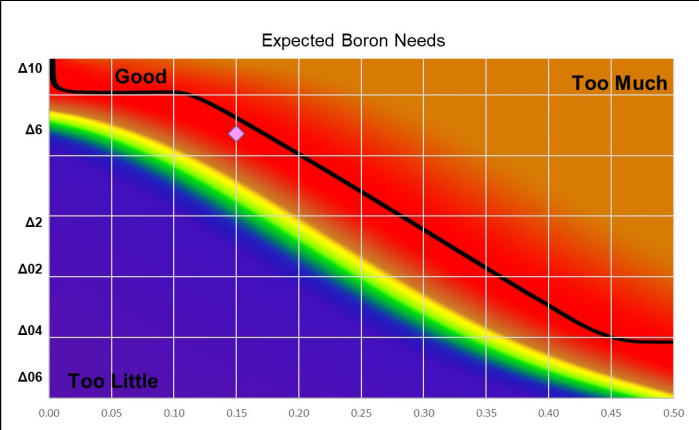
UMF

SiO ₂ :Al ₂ O ₃ Ratio 4.99 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.19	K ₂ O 0.04	MgO 0.50	CaO 0.25
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.53	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

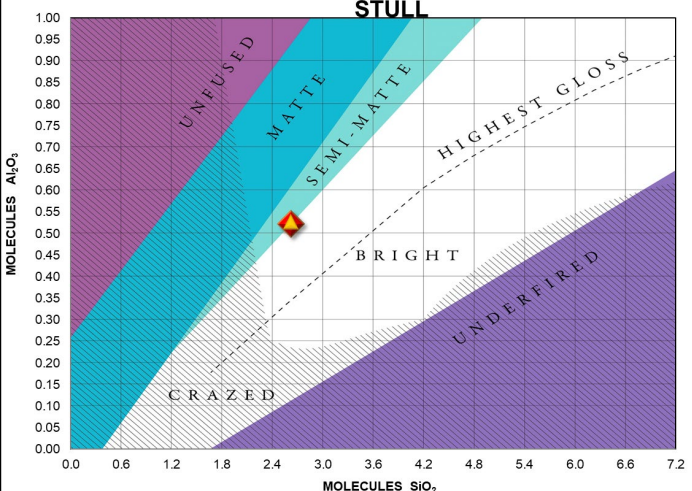
SiO ₂ :Al ₂ O ₃ Ratio 4.99 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.53	Na ₂ O 0.19	K ₂ O 0.04	MgO 0.48	CaO 0.25
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
Materials
Workshop

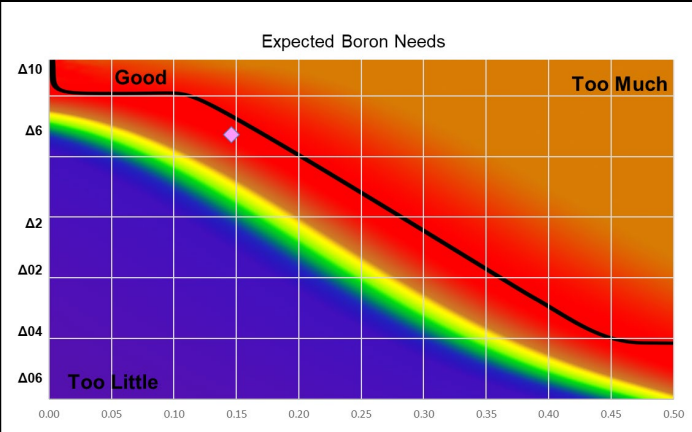
UMF

SiO ₂ :Al ₂ O ₃ Ratio 4.97 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.55	CaO 0.21
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.54	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

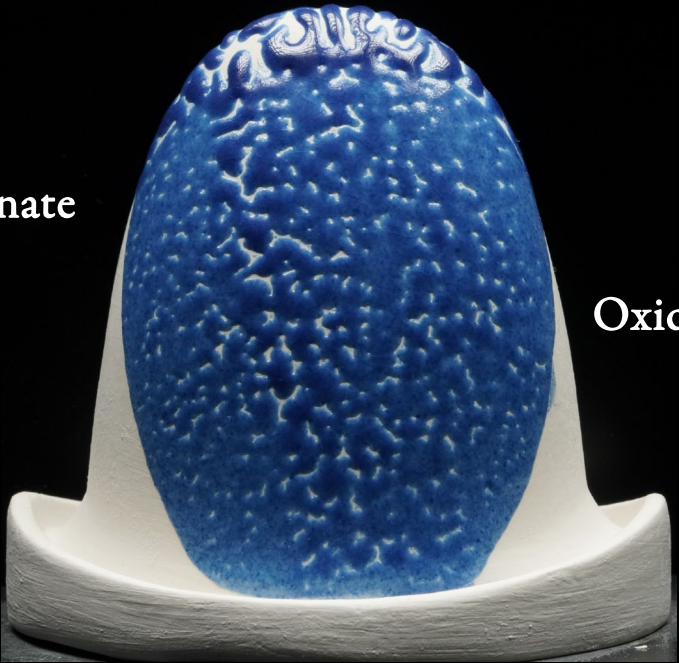
SiO ₂ :Al ₂ O ₃ Ratio 4.97 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.53	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.54	CaO 0.20
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



KB Matte

Chemical Match
Magnesium Carbonate
070522-44

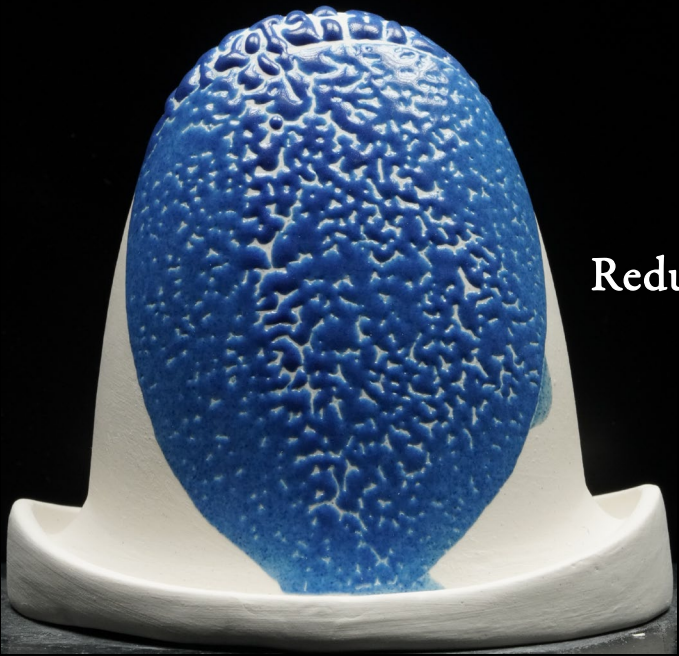
Neph Sy	20.31
Mag Carbonate	14.21
EPK	35.92
Flint	13.31
3134	16.25
Cobalt Carbonate	1.01
Water	170



Oxidation



Reduction



1-3 Second Dip

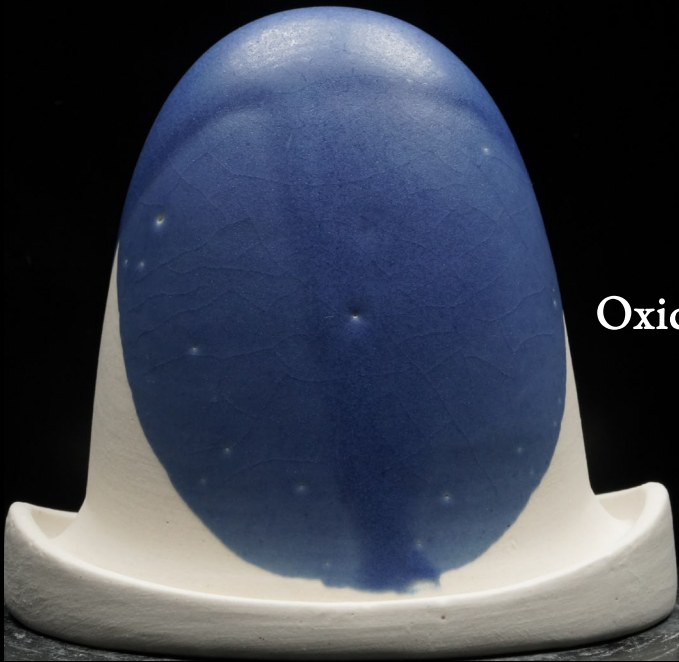


2-3 Second Dips

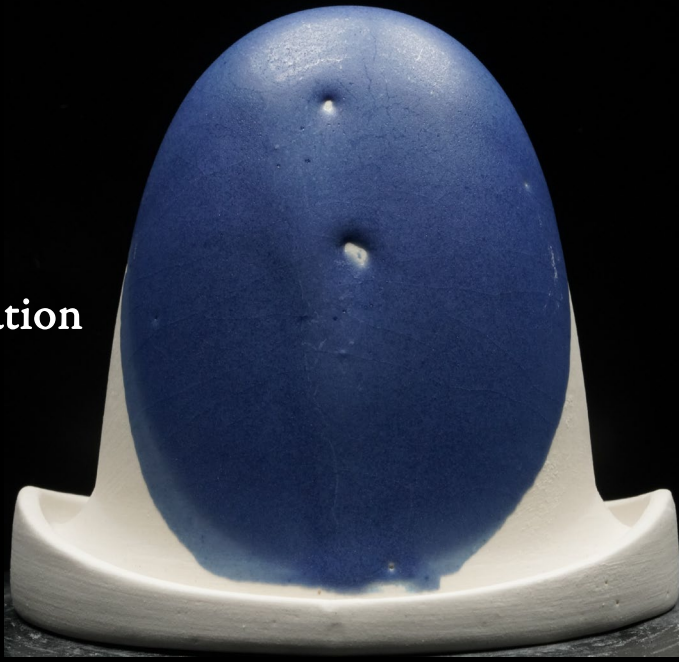
KB Matte

Chemical Match
Dolomite
070522-45

Neph Sy	19.93
Dolomite	15.70
EPK	35.23
Flint	13.21
3134	15.94
Cobalt Carbonate	1.01
Water	120



1-3 Second Dip



2-3 Second Dips

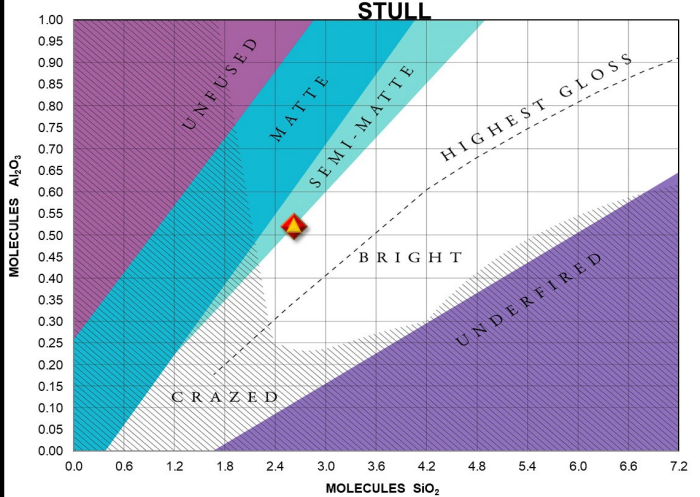


Reduction



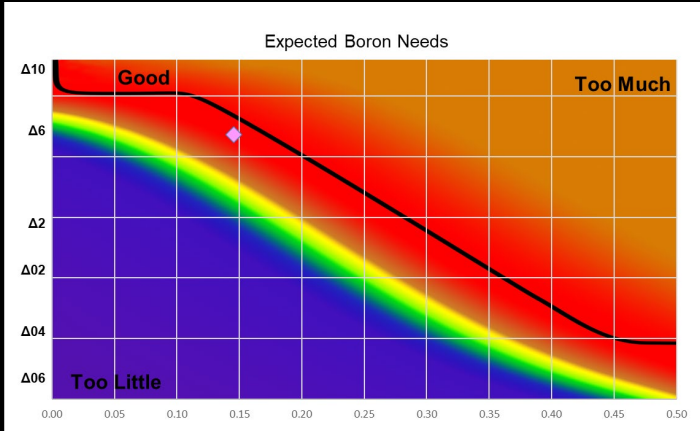
UMF

SiO ₂ :Al ₂ O ₃ Ratio 4.99 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.28	CaO 0.48
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.53	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 4.99 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.53	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.27	CaO 0.47
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
Materials
Workshop

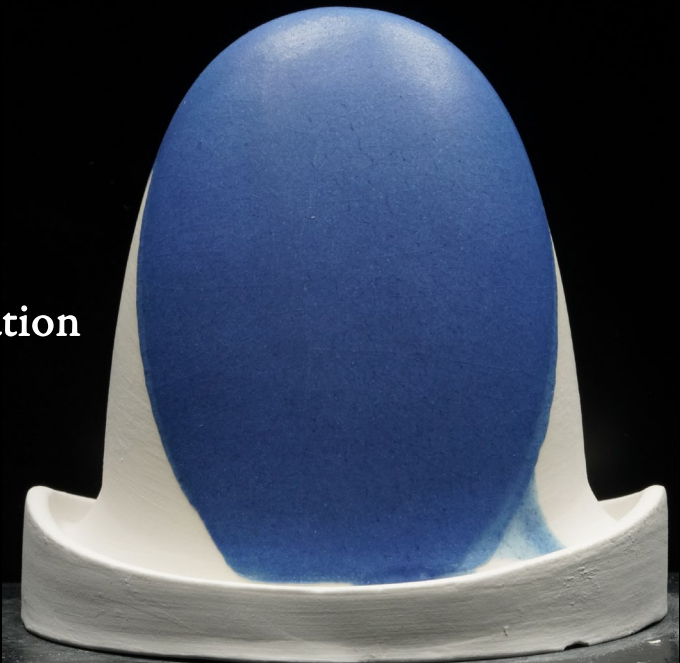
KB Matte

Chemical Match
Wollastonite
070522-46

Neph Sy	20.59
Wollastonite	21.89
EPK	37.18
Flint	2.94
3134	17.40
Cobalt Carbonate	1.01
Water	120



1-3 Second Dip



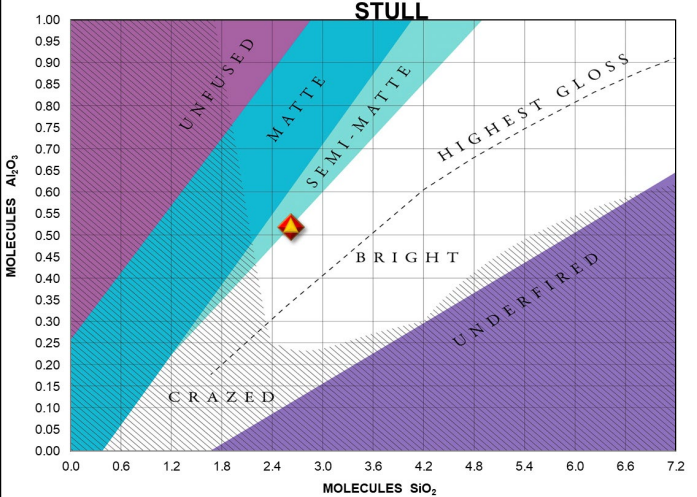
2-3 Second Dips



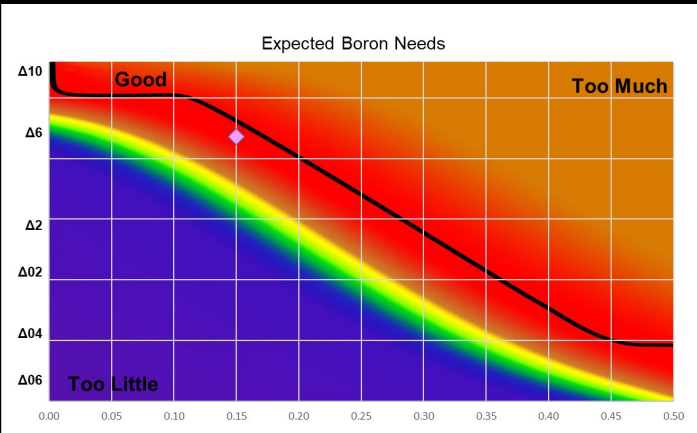
Reduction



UMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio		0.23		0.77	
SiO ₂	Collective "Al ₂ O ₃ "	Na ₂ O	K ₂ O	MgO	CaO
2.69	0.54	0.19	0.03	0.02	0.73
B ₂ O ₃	Al ₂ O ₃	Li ₂ O	CuO	SrO	BaO
0.15	0.53				
TiO ₂	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO
0.01					0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio		0.22		0.78	
SiO ₂	Collective "Al ₂ O ₃ "	Na ₂ O	K ₂ O	MgO	CaO
2.62	0.52	0.19	0.03	0.02	0.71
B ₂ O ₃	Al ₂ O ₃	Li ₂ O	CuO	SrO	BaO
0.15	0.52				
TiO ₂	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO
0.01					0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO
					0.03

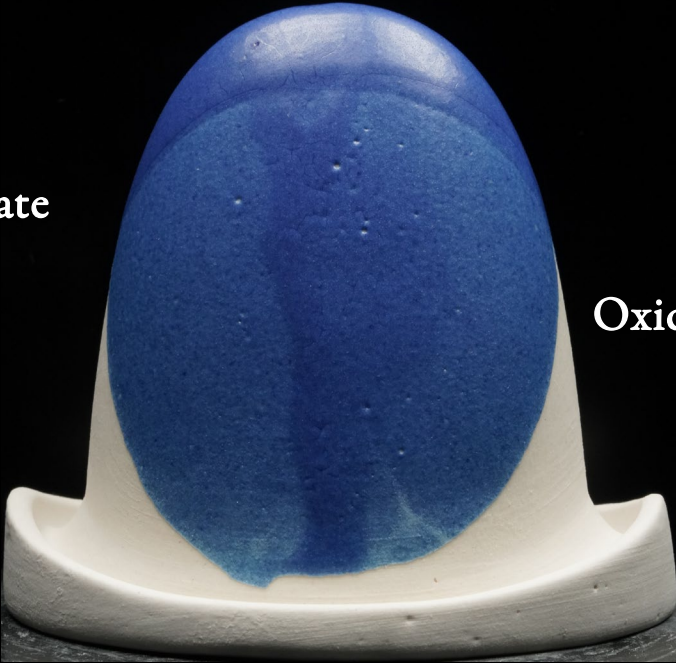


Ceramic
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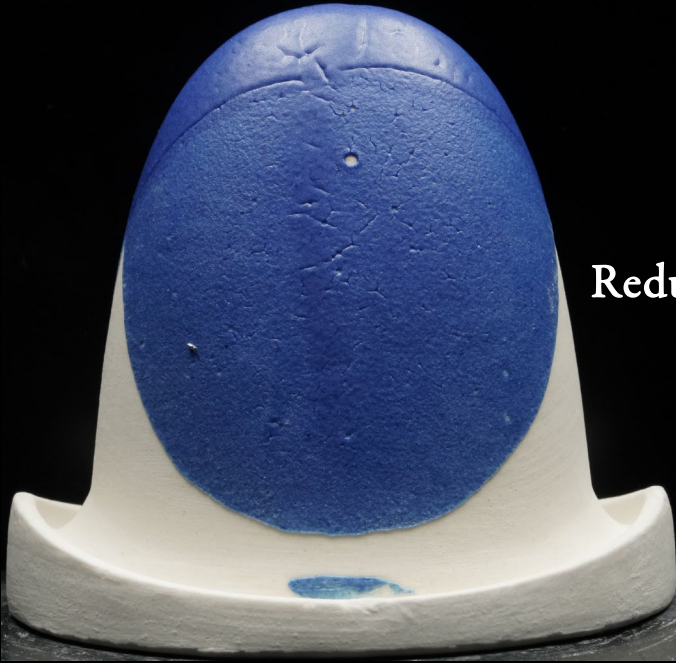
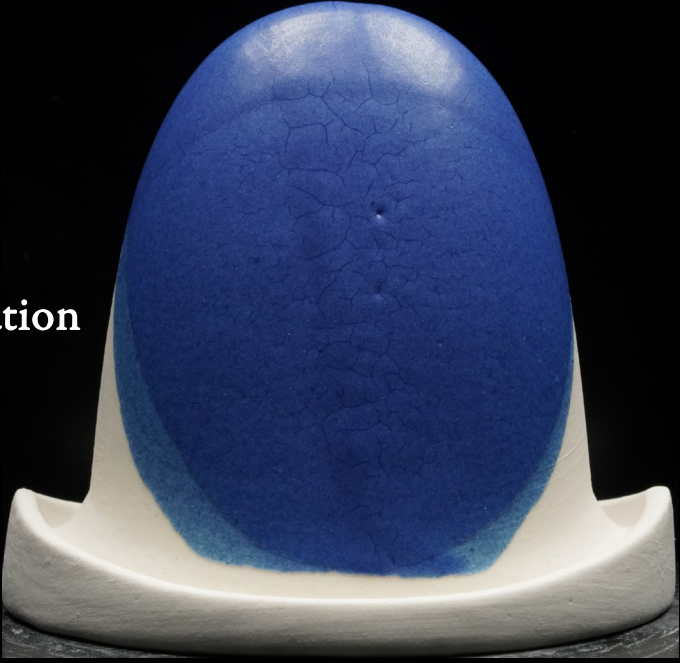
KB Matte

Chemical Match
Strontium Carbonate
070522-47

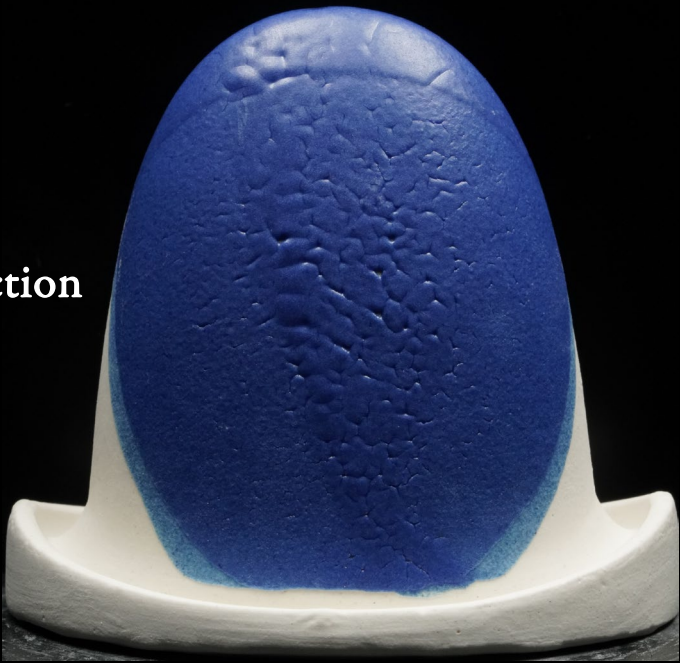
Neph Sy	18.18
Strontium Carb	22.96
EPK	32.14
Flint	12.19
3134	14.54
Cobalt Carbonate	1.01
Water	110



Oxidation

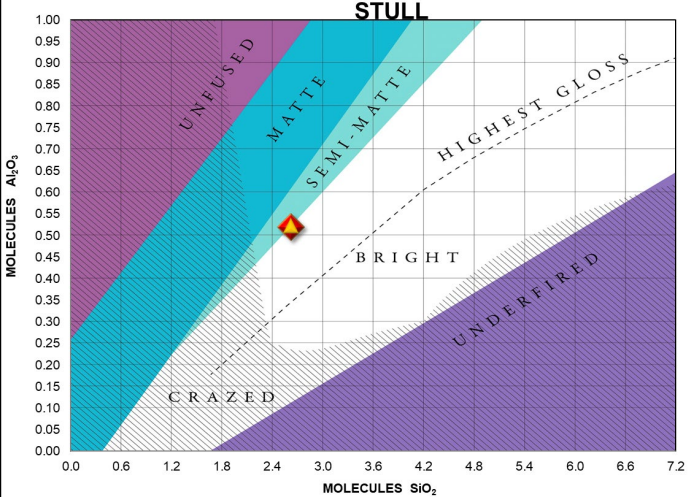


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.70	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.01	CaO 0.21
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.53	Li ₂ O	CuO	SrO 0.55	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

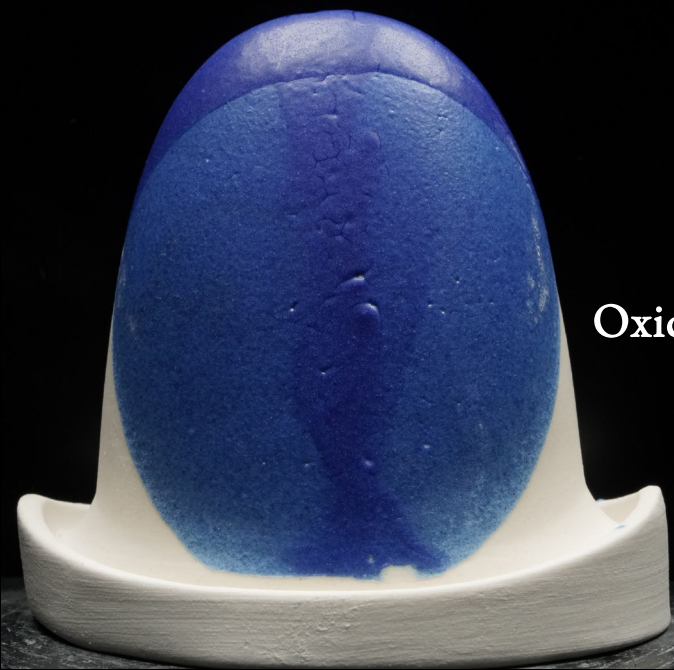
SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.52	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.00	CaO 0.20
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO 0.53	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



KB Matte

Chemical Match
Barium Carbonate
070522-48

Neph Sy	16.86
Barium Carb	28.45
EPK	29.81
Flint	11.38
3134	13.49
Cobalt Carbonate	1.01
Water	130



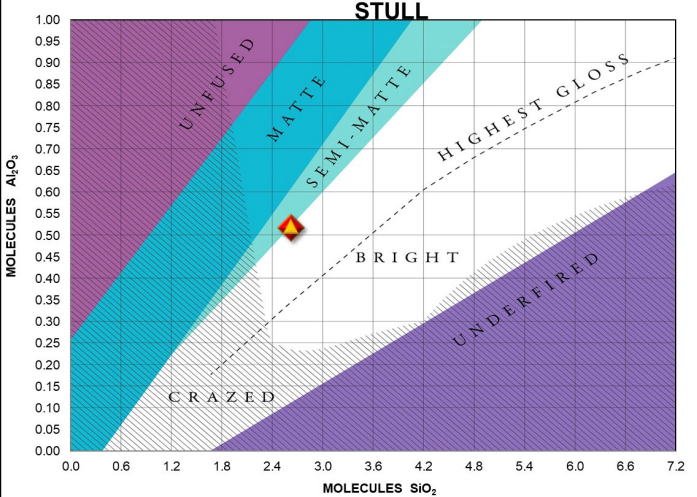
Oxidation



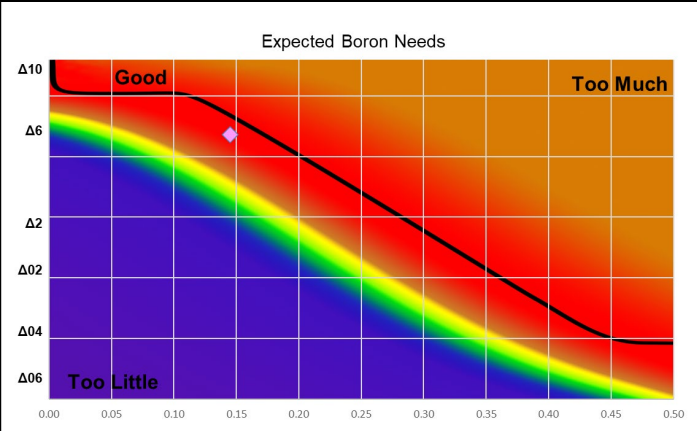
Reduction



UMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 5.01 : 1		0.23		0.77	
SiO ₂ 2.70	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.01	CaO 0.21
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.53	Li ₂ O	CuO	SrO	BaO 0.55
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 5.01 : 1		0.22		0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.52	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.00	CaO 0.20
B ₂ O ₃ 0.14	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO 0.53
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
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KB Matte

Chemical Match
Zinc Oxide
070522-49

Neph Sy	20.28
Zinc Oxide	14.15
EPK	35.86
Flint	13.49
3124	16.23
Cobalt Carbonate	1.01
Water	140



1-3 Second Dip



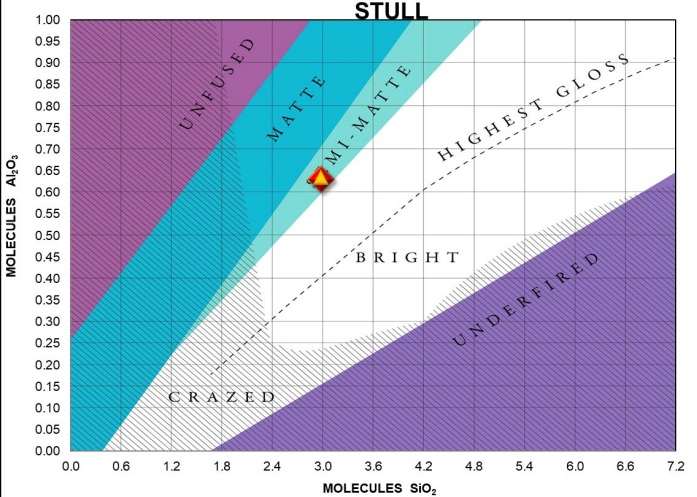
2-3 Second Dips



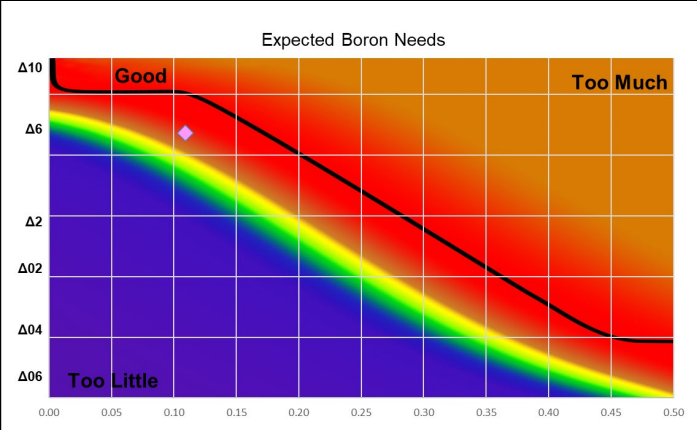
Reduction



UMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 4.68 : 1		0.22		0.78	
SiO ₂ 3.07	Collective "Al ₂ O ₃ " 0.66	Na ₂ O 0.18	K ₂ O 0.04	MgO 0.01	CaO 0.15
B ₂ O ₃ 0.11	Al ₂ O ₃ 0.65	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.61	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 4.68 : 1		0.21		0.79	
SiO ₂ 2.98	Collective "Al ₂ O ₃ " 0.64	Na ₂ O 0.17	K ₂ O 0.04	MgO 0.01	CaO 0.14
B ₂ O ₃ 0.11	Al ₂ O ₃ 0.63	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.59	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
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KB Matte

Chemical Match

Bone Ash

070522-50

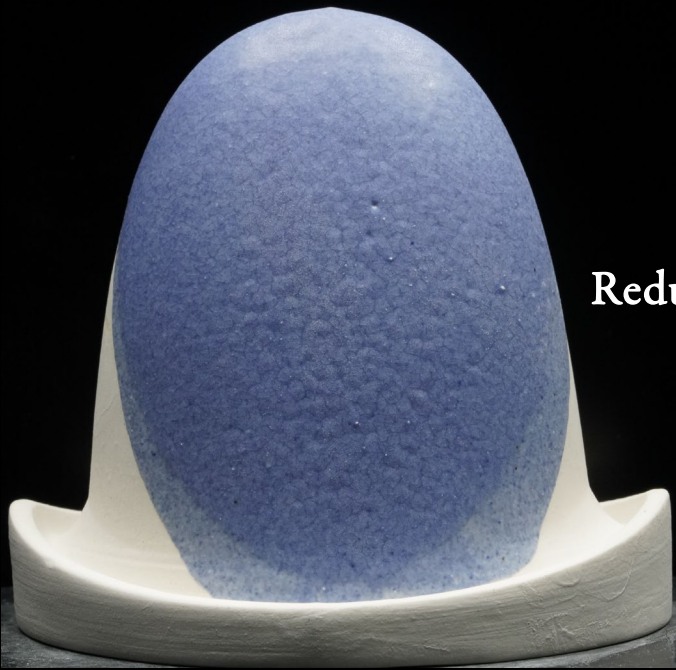
Neph Sy	18.06
Bone Ash	21.84
EPK	32.78
Flint	12.14
3134	15.18
Cobalt Carbonate	1.01
Water	140



1-3 Second Dip



2-3 Second Dips

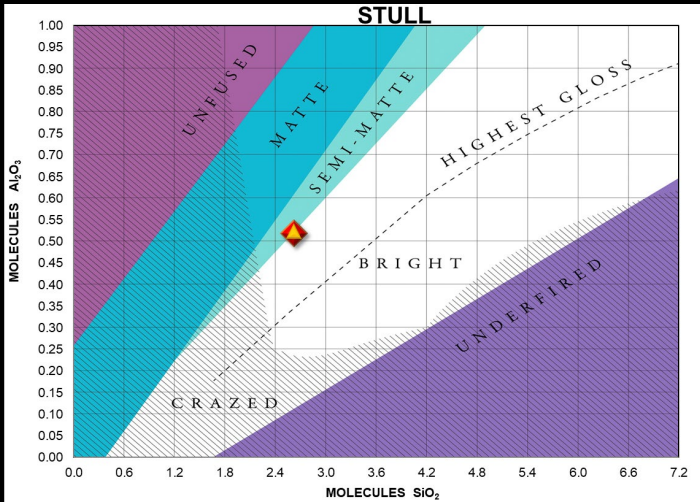


Reduction



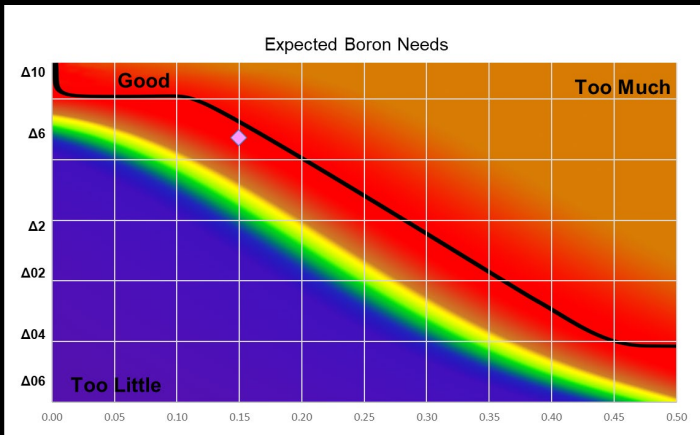
UMF

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.70	Collective "Al ₂ O ₃ " 0.54	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.01	CaO 0.75
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.53	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅ 0.30		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.62	Collective "Al ₂ O ₃ " 0.52	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.01	CaO 0.73
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.52	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅ 0.29		MnO ₂	CoO 0.03



Ceramic
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