

# OFFRETITE METHOD 1

8.0Na<sub>2</sub>O:1.7K<sub>2</sub>O:1.0Al<sub>2</sub>O<sub>3</sub>:24.0SiO<sub>2</sub>:410.0H<sub>2</sub>O:1.7TMACl

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## 1 BATCH COMPOSITION CALCULATION

### COMPOSITION MATRIX [C]

Compound	Na <sub>2</sub> O	K <sub>2</sub> O	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	H <sub>2</sub> O	TMACl
Mole ratio	8.000	1.700	1.000	24.000	410.000	1.700
Weight [g]	495.832	160.133	101.961	1442.023	7386.232	186.317
Mol. wt. [g/mol]	61.979	94.196	101.961	60.084	18.015	109.599

### BATCH MATRIX [B]

Compound	Na <sub>2</sub> O	K <sub>2</sub> O	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	H <sub>2</sub> O	TMACl
NaOH (98.0%)	0.7593	0.0000	0.0000	0.0000	0.2407	0.0000
KOH (85.0%)	0.0000	0.7135	0.0000	0.0000	0.2865	0.0000
Al(iPrO) <sub>3</sub> (98.0%)	0.0000	0.0000	0.2496	0.0000	-0.1323	0.0000
SiO <sub>2</sub> (100.0%)	0.0000	0.0000	0.0000	1.0000	0.0000	0.0000
H <sub>2</sub> O (100.0%)	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000
TMACl (98.0%)	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

### RESULT MATRIX [X] (SF=100.0000)

Substance	Mass [g]	Scaled Mass [g]	Weighted mass [g]
NaOH (98.0%)	653.0134	6.5301	
KOH (85.0%)	224.4224	2.2442	
Al(iPrO) <sub>3</sub> (98.0%)	416.8258	4.1683	
SiO <sub>2</sub> (100.0%)	1442.0232	14.4202	
H <sub>2</sub> O (100.0%)	7218.8065	72.1881	
TMACl (98.0%)	190.1198	1.9012	
Sum	10145.2112	101.4521	

### RESULT MATRIX [X] (SF= 1.0000)

Substance	Mass [g]	Scaled Mass [g]	Weighted mass [g]
Sum	0.0000	0.0000	
NaOH (98.0%)	653.0134	653.0134	
KOH (85.0%)	224.4224	224.4224	
Al(iPrO) <sub>3</sub> (98.0%)	416.8258	416.8258	
SiO <sub>2</sub> (100.0%)	1442.0232	1442.0232	
H <sub>2</sub> O (100.0%)	7218.8065	7218.8065	
TMACl (98.0%)	190.1198	190.1198	
Total Sum	10145.2112	10145.2112	

## 2 SYNTHESIS

Sample name	
Time	
Date	
Temperature	
Oven	
Liner	
Autoclave	
Drying	
Comment	

### CALCINATION I

Date: 

Mass [g]	Before calcination	After calcination
Weighing boat		
Weighing boat + sample		
Sample		

### ION EXCHANGE

Date: 

Notes


### CALCINATION II

Date: 

Mass [g]	Before calcination	After calcination
Weighing boat		
Weighing boat + sample		
Sample		

## 3 ANALYSIS

### XRD

Date: 

Sample name	Result	Comment

### SEM

Date: 

Sample name	Aspect ratio	Si/Al	Comment