

Rocks

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.Metamorphic Rocks

Sedimentary rocks

Igneous Rocks.

Sedimentary rocks :

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Arabian Shelf

Metamorphic rocks :

: Igneous Rocks

(magma)

Lava

Arabian

Shield

% 28

:

52.89	70.84	SiO ₂
18.93	14.35	Al ₂ O ₃
4.06	2.30	Fe ₂ O ₃
4.80	0.97	FeO
0.43	0.02	MnO
3.72	0.92	MgO
8.56	1.45	CaO
3.98	2.78	Na ₂ O
0.94	5.31	K ₂ O
0.96	0.42	Ti ₂ O
0.22	-	P ₂ O ₅

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Formation of igneous Rocks :

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: **Crystallization**

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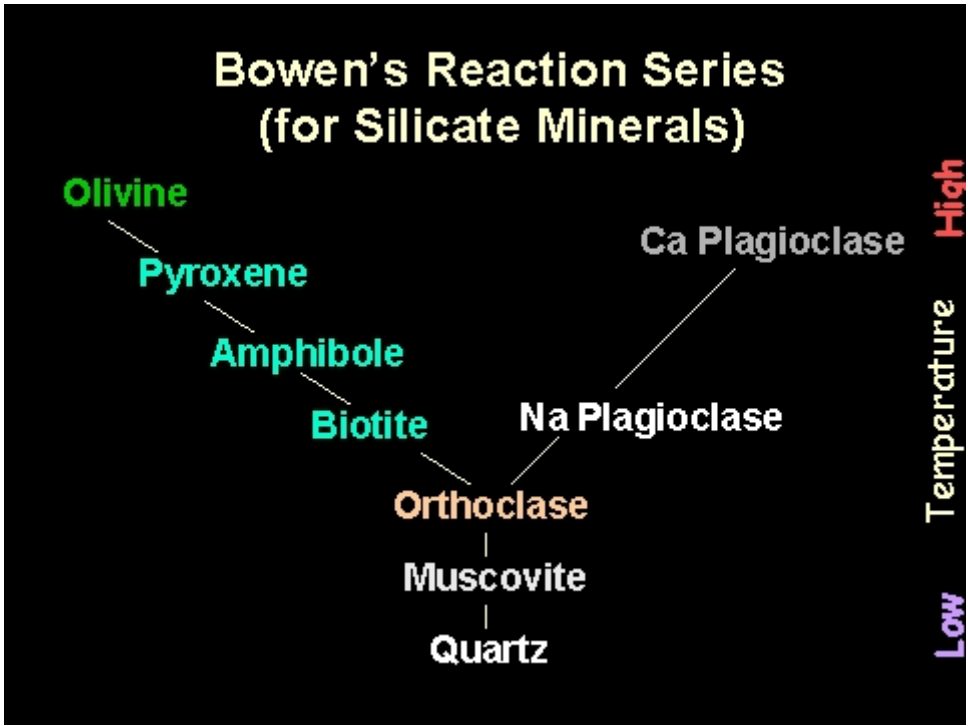
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Order of crystallization :



Bowen

Ferromagnesian

SiO₄

Ferromagnesian

. Discontinuous reaction series

Continuous reaction series

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		10 =
	2+	0.98
	1+	0.98
	1+	1.33

. Fractionation

:

:

Ultra acidic rocks - 1

%70

%66 70 Acidic rocks - 2

Intermediate or transitional rocks - 3

%52 66

Basic rocks - 4

%42 %52

Ultra basic rocks - 5

%42

:

Light colored rocks

-1

Sialic rocks

Si

Rate of cryetelization

Fractionation

1100

750

30.000

3

-:

750	
12	3
3	30
300	300

30.000	3000
3.000.000	30.000

%95

صخر الجرانيت : Granite وهو صخر ذات قوام خشن وتركيبه المعدني

كالتالي :

1 + 1 + 2

Ferromagnesians

Fine - grained

Dark colored rocks : 3

Mg

Sima

Siali

Sime

1) -:

Fin grained

I part : (

1 +

I part plagioclase feldspar ferromagnesians

grbbro

.coarse grained

: -3
:-

Andesite

Diortite

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