Figure 1a
Figure 1b
Figure 2

![Graph showing fraction of melt in magma body ($f_m$) and fraction of anatectic melt ($f_a$) as a function of temperature ($T_m$).]
Figure 3a

The graph shows the relationship between $\frac{\text{Sr}}{\text{Sr}}$ (ppm) and $\frac{\text{Sr}}{\text{Sr}}$ for different conditions:

- **EC-AFC, 'nonlinear' upper**: $T_m = T_{eq}$
- **EC-AFC, 'standard' upper**: $T_m = T_{eq}$
- **EC-AFC, lower**: $T_m = T_{eq}$
- **'classical', upper**
- **'classical', lower**

The graph also highlights the deviation between $T_m$ and $T_{eq}$.
Figure 3b

Graph showing the relationship between $S_r$ (ppm) and $f_a(T_a)$. The x-axis represents $f_a(T_a)$ ranging from 0 to 1, and the y-axis represents $S_r$ (ppm) ranging from 0 to 5000. The graph includes points labeled $T_s$ and $T_{l,a}$.
Figure 4a
Figure 4b

The figure shows the relationship between $f_a(T_a)$ and $Sr$ (ppm) for different EC-AFC conditions. The curves represent:
- **EC-AFC, 1000**
- **EC-AFC, 700**
- **EC-AFC, upper**

The curves intersect at $T_m = T_{eq}$, indicating a phase transition or equilibrium point. The $x$-axis represents $f_a(T_a)$ ranging from 0 to 1, and the $y$-axis represents $Sr$ (ppm) ranging from 0 to 2000. The labels $EC-AFC, 1000$, $EC-AFC, 700$, and $EC-AFC, upper$ are placed near the corresponding curves for clarity.
Figure 5

- EC-AFC, 'standard'
- EC-AFC, lower
- 'classical', lower
- EC-AFC, 'classical', upper
- EC-AFC, 'nonlinear', upper
- $T_m = T_{eq}$
- $T_m = T^0$
Figure 6a

\[ T_m = T_m^0 \quad \text{EC-AFC, lower} \]

\[ T_m = T_{eq} \]

\[ T_m = T_{eq} \quad \text{EC-AFC, upper} \]

\[ '\text{classical}', \text{ lower} \]

\[ '\text{classical}', \text{ upper} \]
Figure 6b
Figure 7a

EC-AFC, upper

EC-AFC, lower

$T_m = T_{eq}$

$M_a^*/M_o$

$S_r$ (ppm)
Figure 7b

![Graph showing the relationship between $M_a^*/M_o$ and $\frac{87\text{Sr}/86\text{Sr}}{87\text{Sr}/86\text{Sr}}$]

- EC-AFC, upper
- EC-AFC, lower
- $T_m = T_{eq}$
Figure 8a

Upper Crust

\[ T_m = T_m^\circ \]

EC-AFC, upper

\[ \frac{C_m}{C_a} = 2/1 \]

EC-AFC, 175

\[ \frac{C_m}{C_a} = 4/1 \]

EC-AFC, 233

\[ \frac{C_m}{C_a} = 3/1 \]

\[ T_m = T_{eq} \]
Figure 8b

Upper Crust

$\frac{87^{SR}}{86^{Sr}}$

$M_a^*/M_o$

$T_m = T_{eq}$

EC-AFC, 233

EC-AFC, upper

EC-AFC, 175

$T_m = T_m^*$
Figure 8c
Figure 8d

Lower Crust

$^{87}\text{Sr}/^{86}\text{Sr}$ vs $M_{a}^{\ast}/M_{o}$

- EC-AFC, 350
- EC-AFC, 175
- Lower Crust

$T_{m} = T_{m}^{\circ}$

$T_{m} = T_{eq}$
Figure 9a

EC-AFC, \( T_{eq} = 950 \, ^\circ C \)

EC-AFC, \( T_{eq} = 920 \, ^\circ C \)

\[ T_m = T_{eq} \]
Figure 9b

$T_m = T_{eq}$

EC-AFC, $T_{eq} = 920 \, ^\circ C$

EC-AFC, $T_{eq} = 950 \, ^\circ C$

EC-AFC, upper
Figure 9c

EC-AFC, $T_{eq} = 920 \, ^\circ C$

EC-AFC, $T_{eq} = 950 \, ^\circ C$

EC-AFC, upper

$T_m = T_{eq}$

$T_m = T_{eq}$
Figure 9d

$T_m = T_{meq}$

EC-AFC, upper

EC-AFC, $T_{eq} = 920 \, ^oC$

EC-AFC, $T_{eq} = 950 \, ^oC$

$M_a^*/M_o$
Figure 10a

EC-AFC, $T_{l,m}, T_m^o = 1500 \, ^\circ C$

EC-AFC, $T_{l,a} = 1200 \, ^\circ C$

EC-AFC, upper

$T_m = T_m^o$

$T_m = T_{m_{eq}}$

$T_{m_{eq}} = T_{m_{eq}}$

$M_a^*/M_o$
Figure 10b

EC-AFC, upper

EC-AFC, $T_{l,a} = 1200 \, ^\circ C$

EC-AFC, $T_{l,m}, T_{m} = 1500 \, ^\circ C$

$T_{m} = T_{eq}$
Sr (ppm)

EC-AFC, $T_m = T_{eq}$

EC-AFC, $T = 800 \, ^\circ C$

$T_m = T_{m^o}$

$T_m = T_{eq}$

EC-AFC, upper
Figure 11b

Nd (ppm)

$T_m = T_m^o$

EC-AFC, upper

EC-AFC, $T_s = 800 \, ^\circ C$

$T_m = T_{eq}$

$T_m = T_{eq}$
Figure 12a

EC-AFC, \( T_m = T_{eq} \)

EC-AFC, \( T^0 = 600 \, ^\circ C \)

Sr (ppm)

\( 87\text{Sr}/86\text{Sr} \)
Figure 12b

EC-AFC, upper

$T_m = T_m$°

EC-AFC, $T_a° = 600 °C$

$T_m = T_{eq}$

$T_m = T_{eq}$
Figure 14

The graph shows the relationship between Sr (ppm) and \( \frac{\text{Sr}_{87}}{\text{Sr}_{86}} \). The data points are plotted along a trajectory line labeled AFC 1, indicating a process or reaction sequence. Additionally, there are two arrows labeled ERB 2 and ERB 3, suggesting two different paths or processes. The line labeled \( T_m = T_{eq} \) indicates a balance or equilibrium temperature. Another line labeled AFC 2 extends further, possibly representing another process or a different phase of the reaction. The graph also includes a note \( T_m = T_{m_0} \) indicating a reference or initial temperature.
Figure 15a