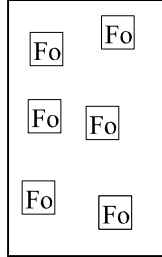
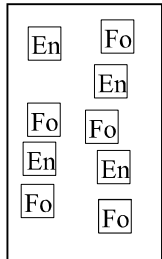


T<sub>1</sub> Composition A



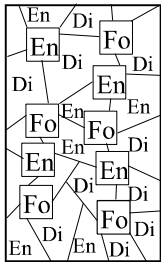
Solid =  $1.7/4.1 \times 100 = 41\%$   
 All solid = Fo  
 Melt = 59%  
 $Mg_2SiO_4 = 40\%$   
 $SiO_2 = 25\%$   
 $CaMgSi_2O_6 = 35\%$

T<sub>2</sub> Composition A



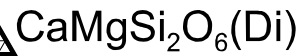
Solid =  $4.5/6.1 \times 100 = 74\%$   
 $Fo = 0.9/2.1 \times 100 = 43\%$   
 $En = 1.2/2.1 \times 100 = 57\%$   
 Melt =  $1.6/6.1 \times 100 = 26\%$   
 $Mg_2SiO_4 = 9\%$   
 $SiO_2 = 13\%$   
 $CaMgSi_2O_6 = 78\%$

T<sub>3</sub> Composition A



100% Solid  
 $Di = 21\%$   
 $En = 53\%$   
 $Fo = 26\%$

# Ternary Peritectic Phase Diagram



Equilibrium crystallization of composition A

TOTAL MINERALOGY

$Di = 1.5/7.2 \times 100 = 21\%$   
 $En = 1.4/2.1 \times 79\% = 53\%$   
 $Fo = 0.7/2.1 \times 79\% = 26\%$

Phenocryst Assemblage (% of Chamber)

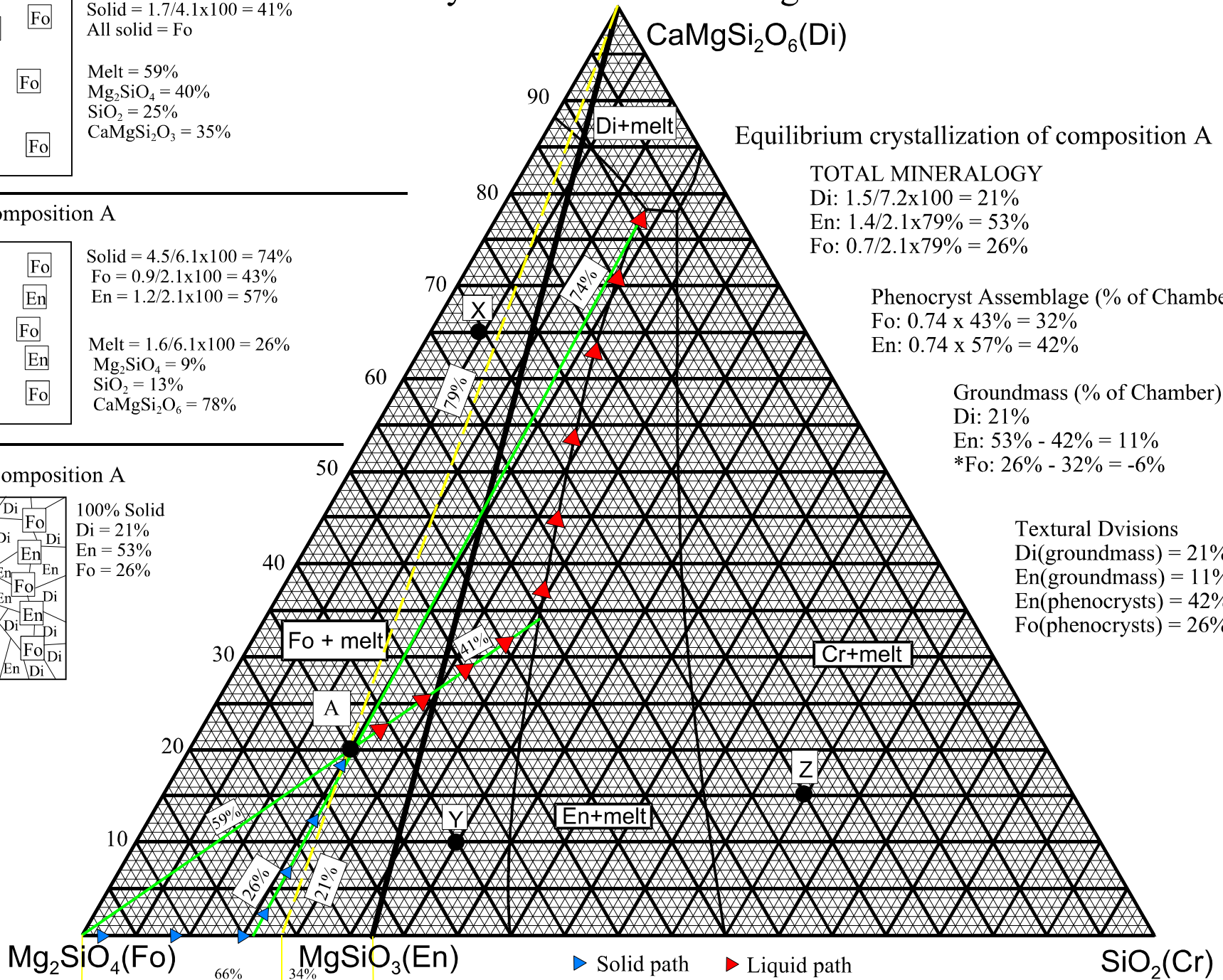
$Fo = 0.74 \times 43\% = 32\%$   
 $En = 0.74 \times 57\% = 42\%$

Groundmass (% of Chamber)

$Di = 21\%$   
 $En = 53\% - 42\% = 11\%$   
 $*Fo = 26\% - 32\% = -6\%$

Textural Divisions

$Di(\text{groundmass}) = 21\%$   
 $En(\text{groundmass}) = 11\%$   
 $En(\text{phenocrysts}) = 42\%$   
 $Fo(\text{phenocrysts}) = 26\%$



▶ Solid path    ▶ Liquid path