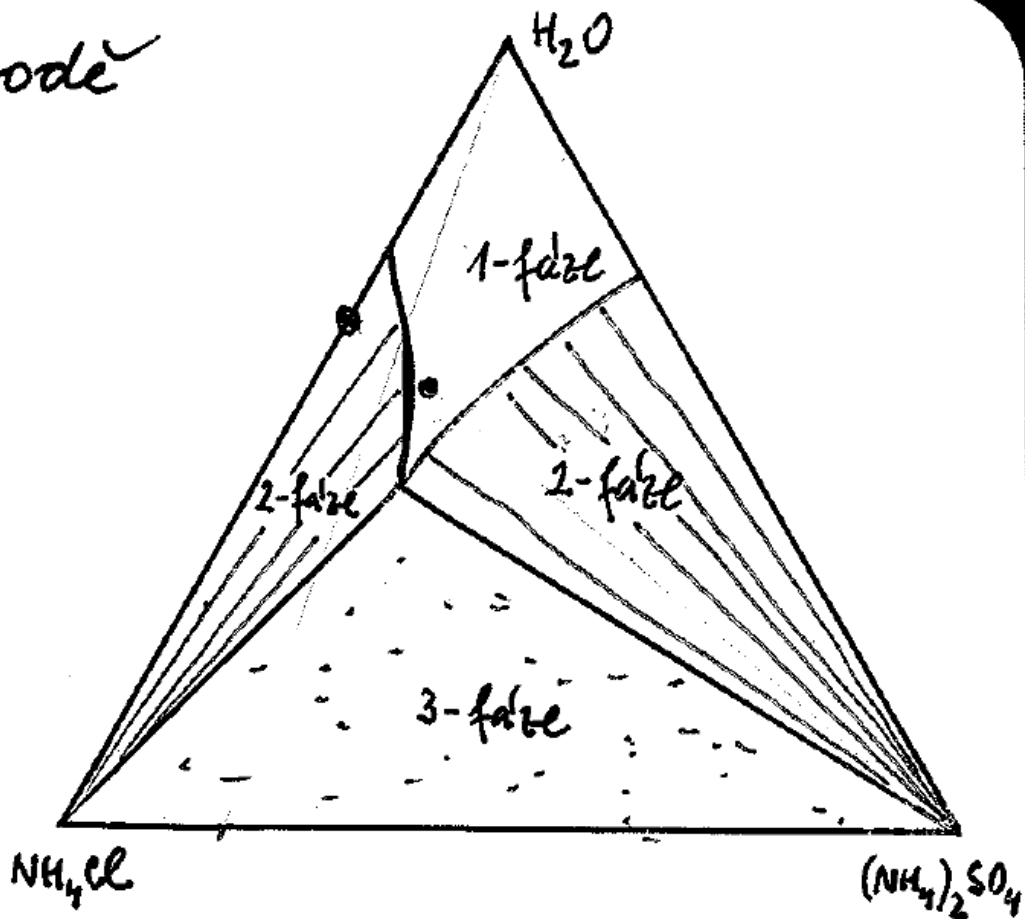
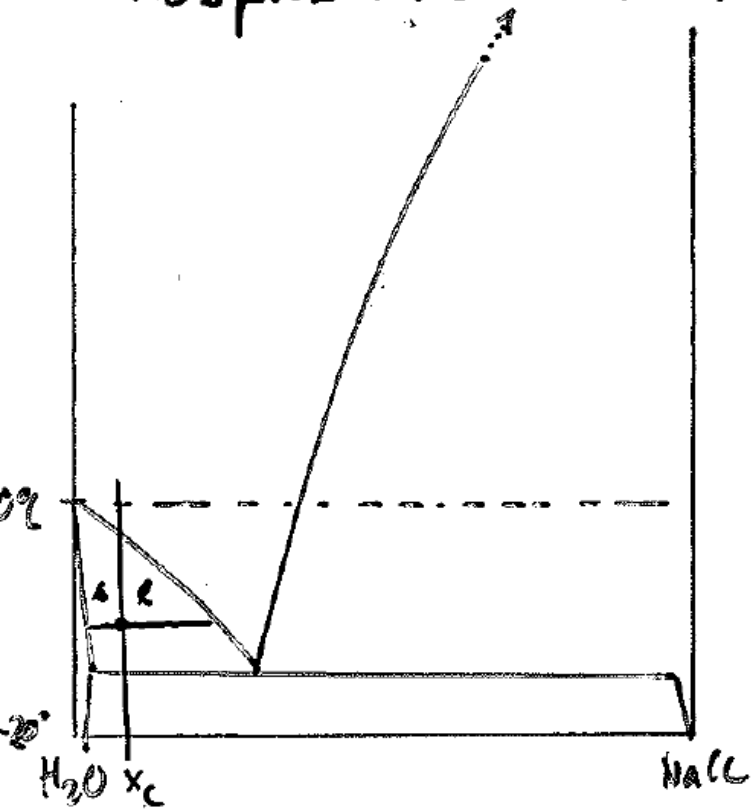
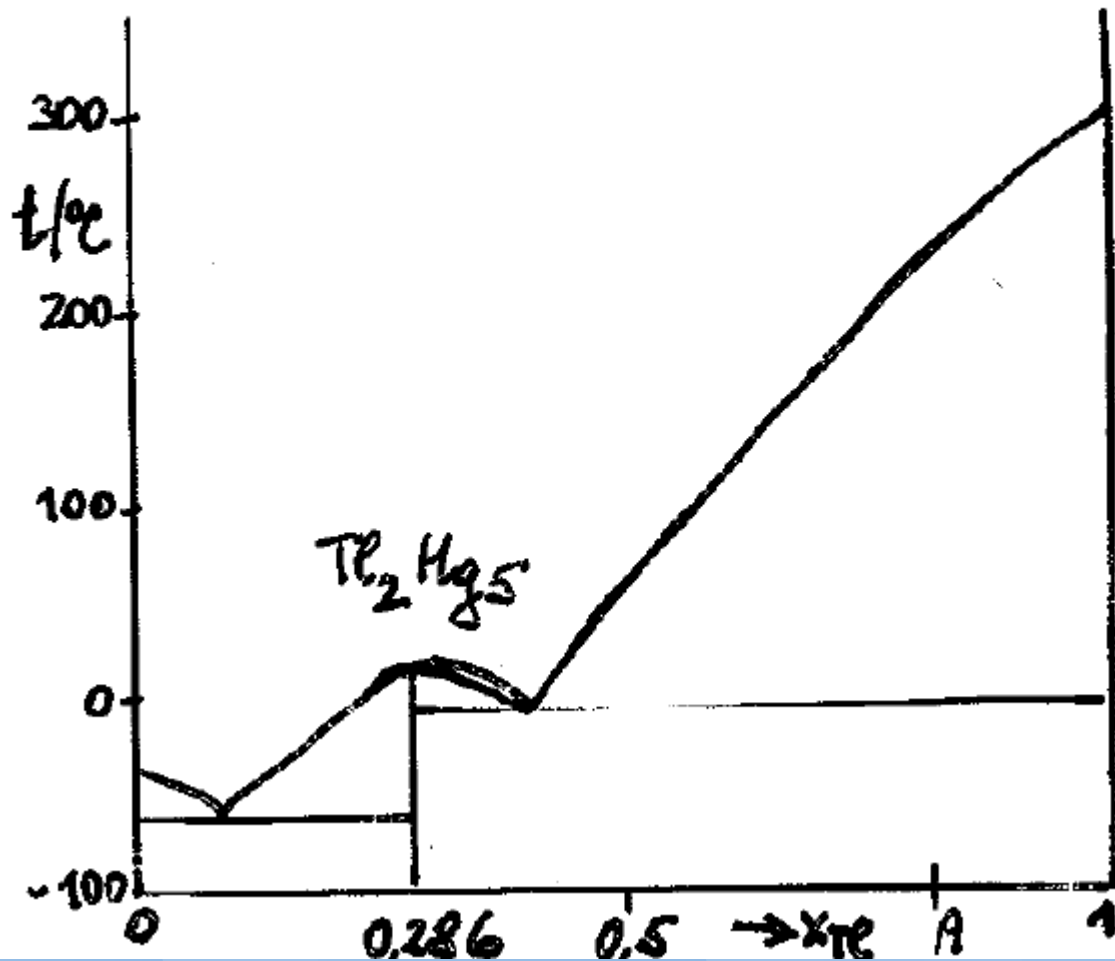


Vybrané aplikace FD dvou a tří složkové soustavy

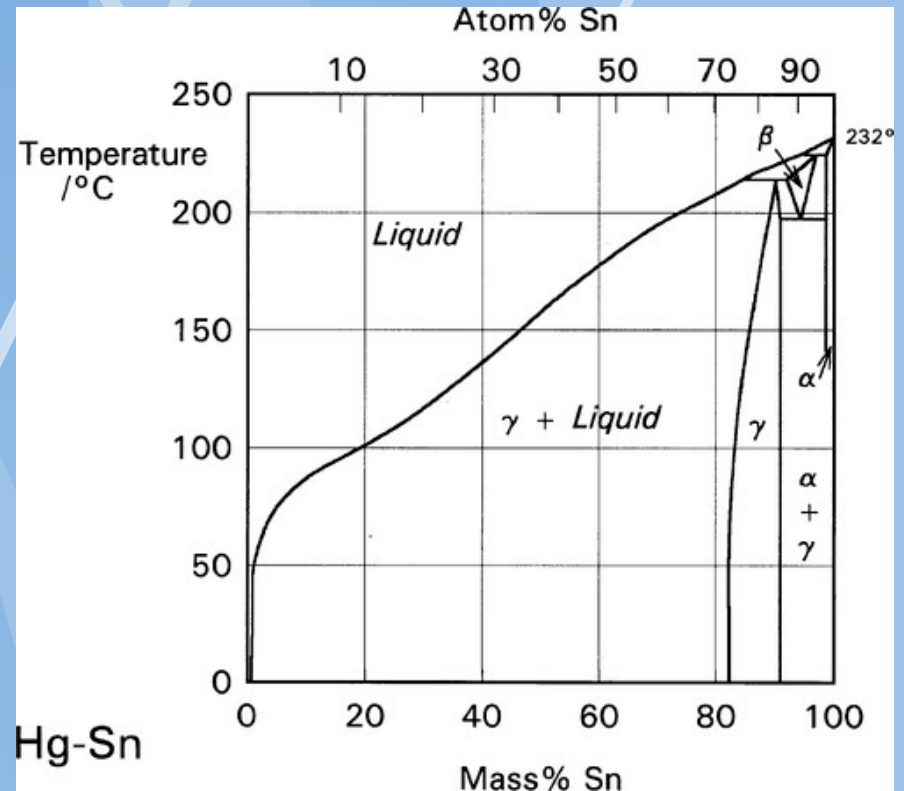
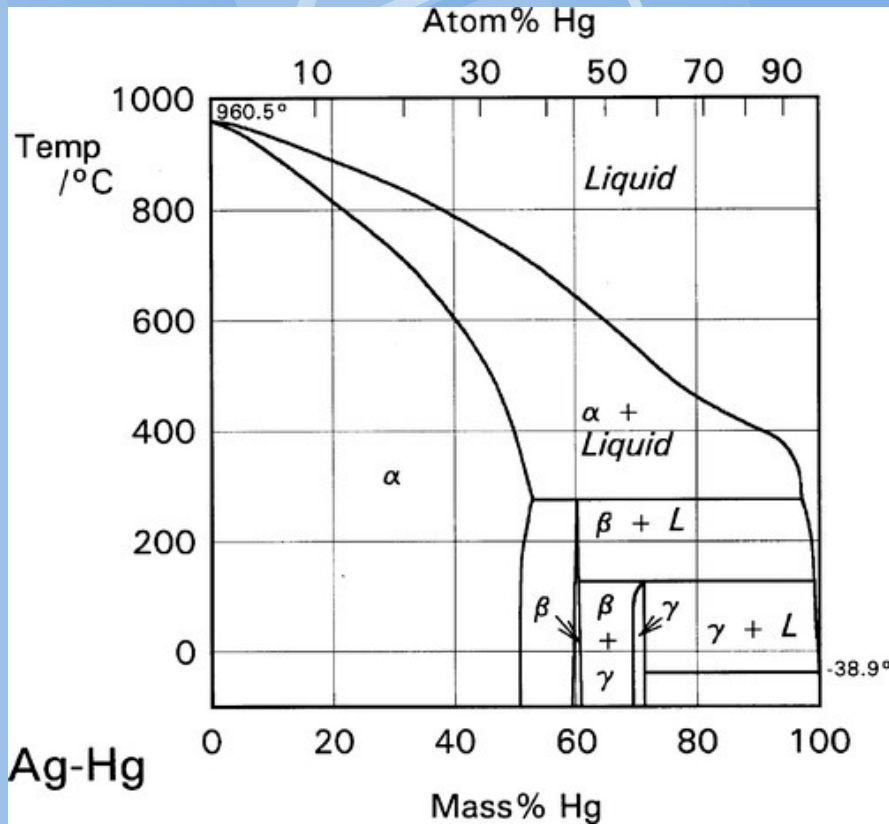
Rozpuštnost soli ve vodě



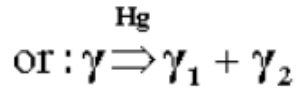
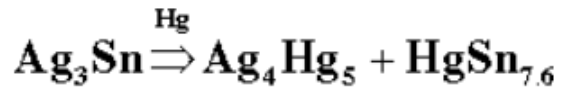
1 amalgam - system Hg-Te



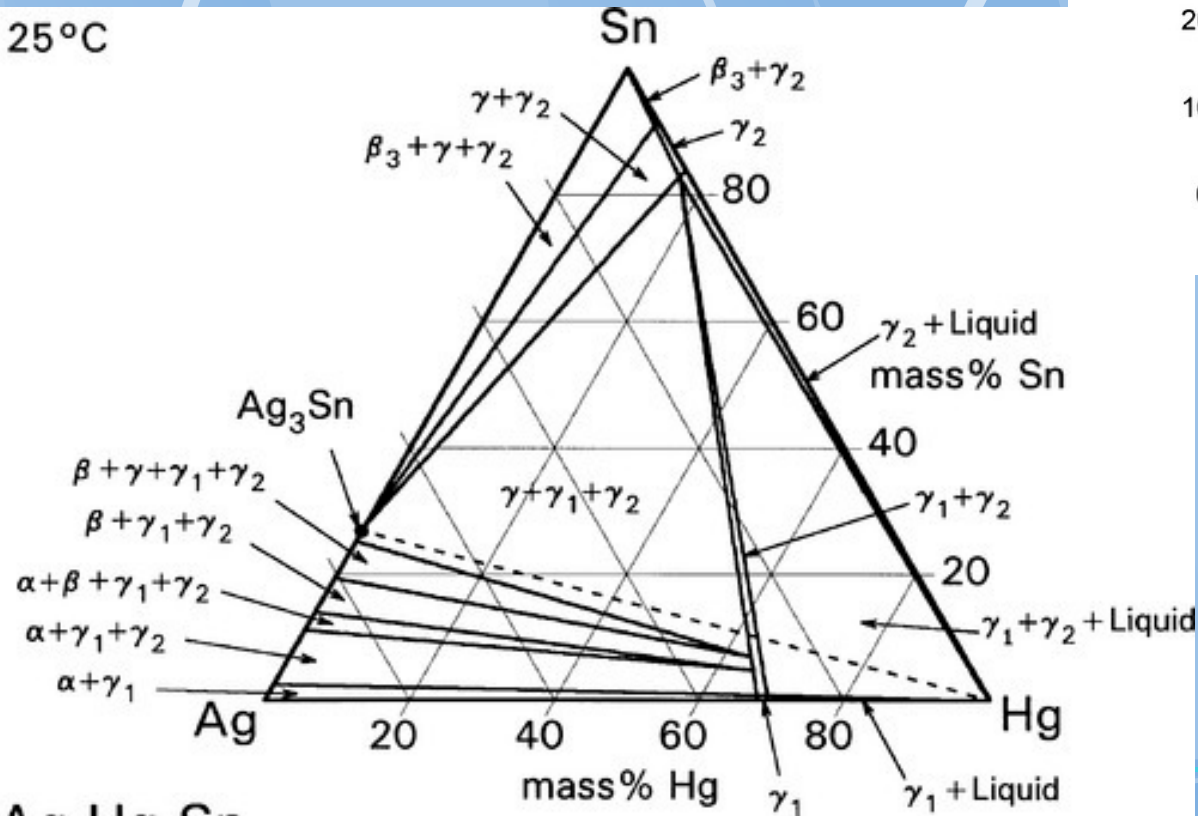
Zubní amalgám Hg-Ag-Sn



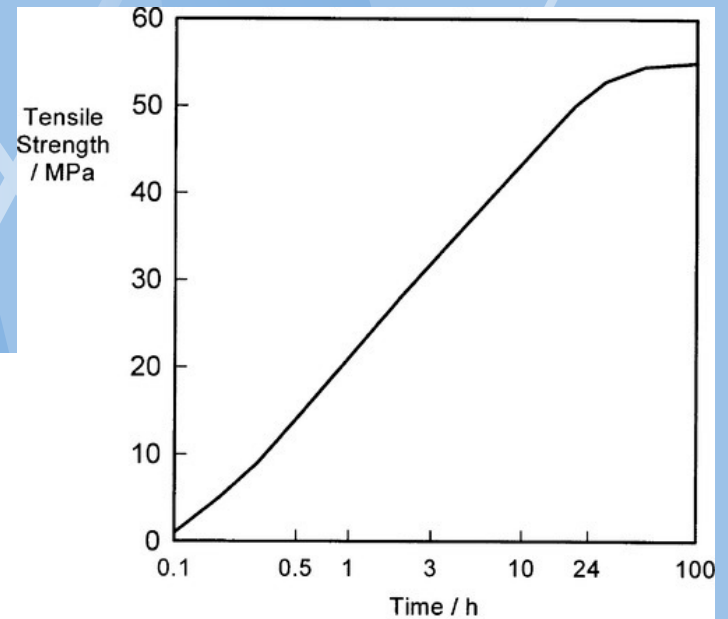
Ag-Sn-Hg

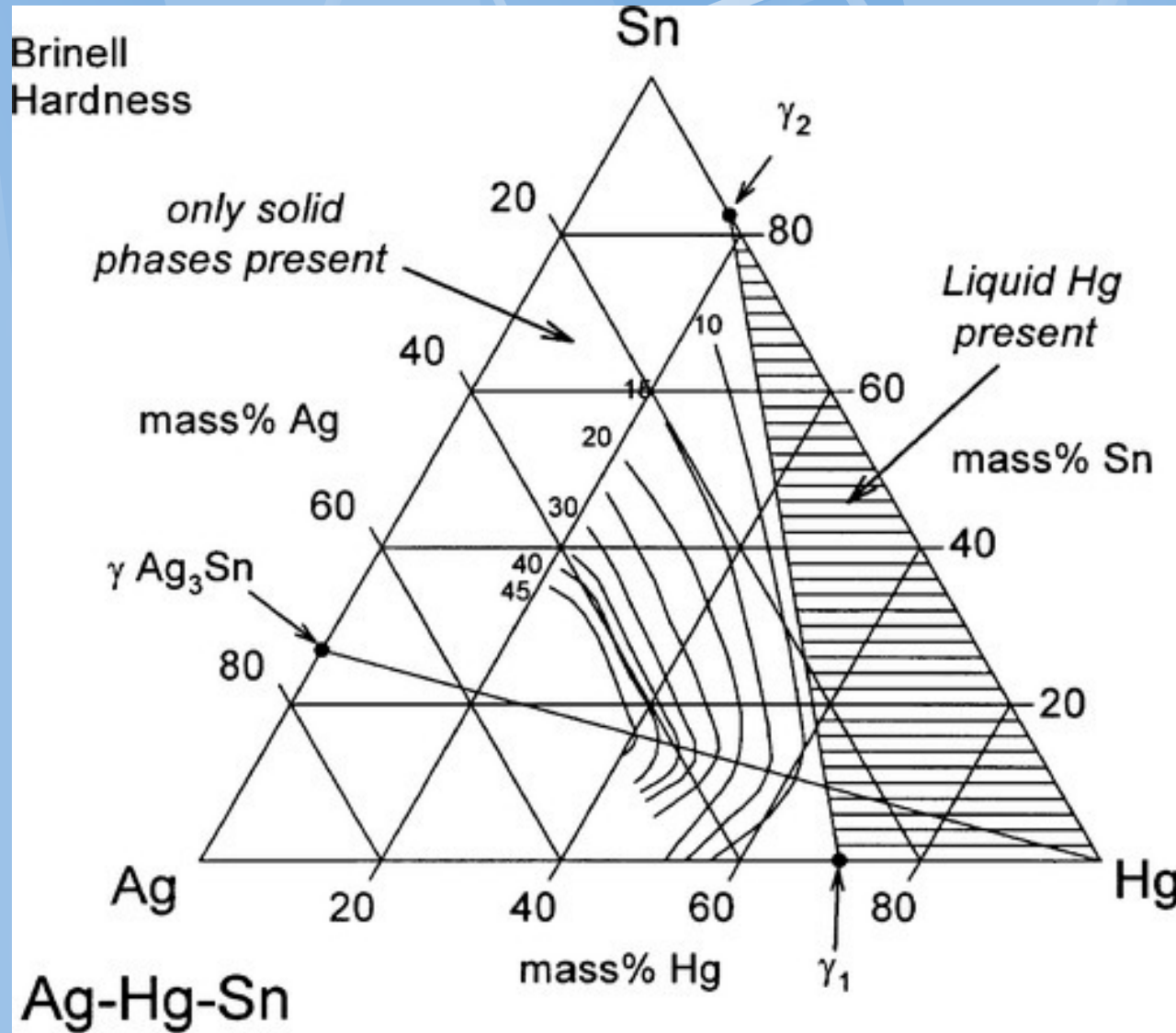


25°C



Ag-Hg-Sn



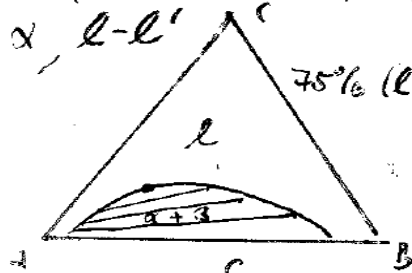


Variation in Brinell indentation hardness (numbered contours) with composition in the Ag-Hg-Sn system corresponding to the reaction stage shown in [Fig. 1.5](#). The line between the points labelled γ_1 and γ_2 represents compositions of stoichiometric complete reaction; it is the solidus.

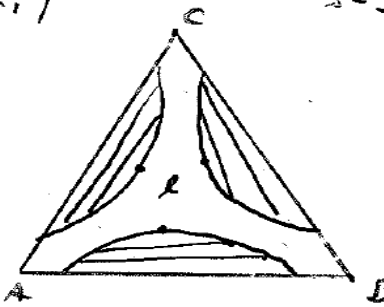
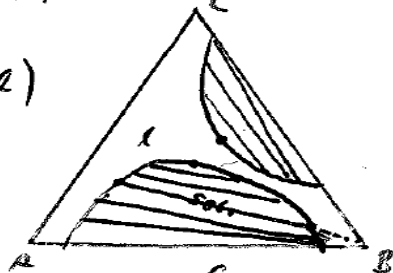
Směsi rozpouštědel

Základní typy ^{termických} isobaricko-isokoncentračních řezů tern. soust.

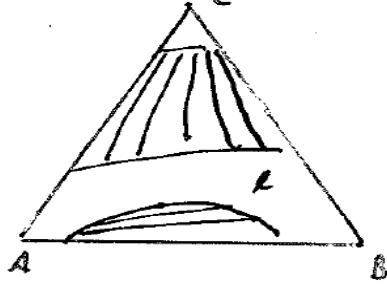
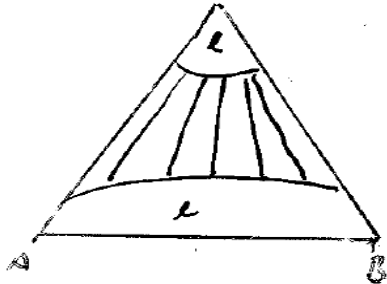
$p = \text{fix} \Rightarrow b_{\text{max}} = 3$ (v koexistenci)



75% (l+l)



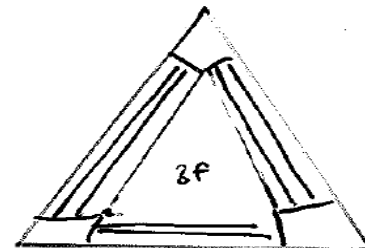
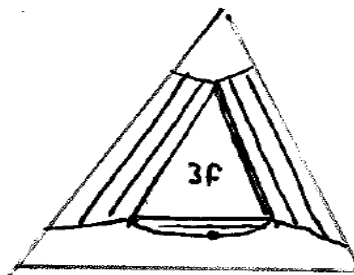
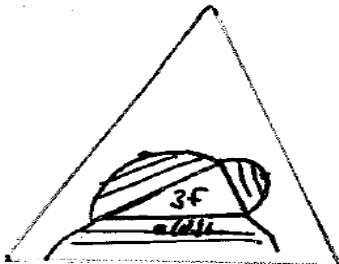
$s=3$



Pouze dvoufázové oblasti $l-l'$

- kritický bod ($l \equiv l'$)
- soluttopický bod ~~střetnutí~~ (tie - limit míří do nuly)
- astatopický bod střetnutí tie =

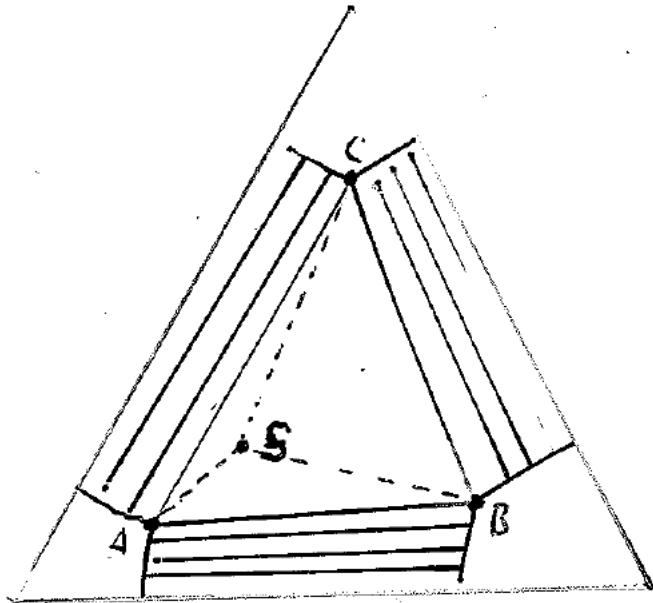
3, přechy v dvoufázových oblastech \Rightarrow 3fázová oblast



geometrický důsledek zákona zach. hm. v 3f soustavě

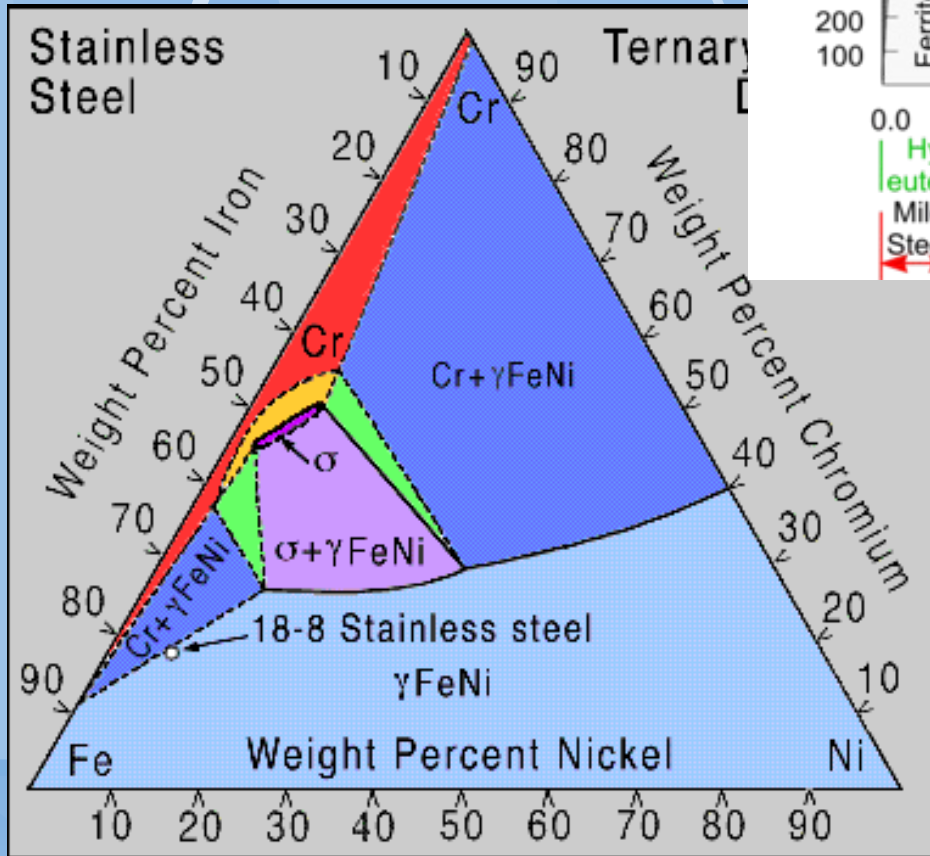
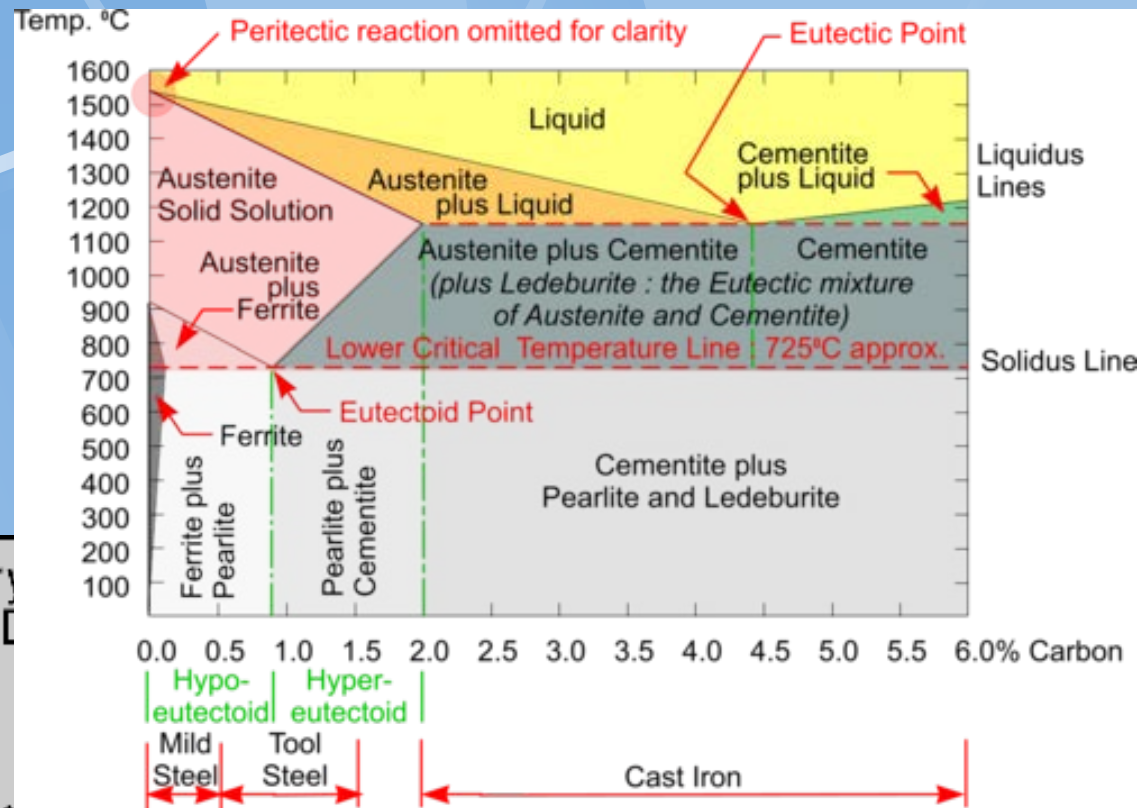
Podíly fází

geometrický důsledek zákona zach. hm. v 3f soustavě



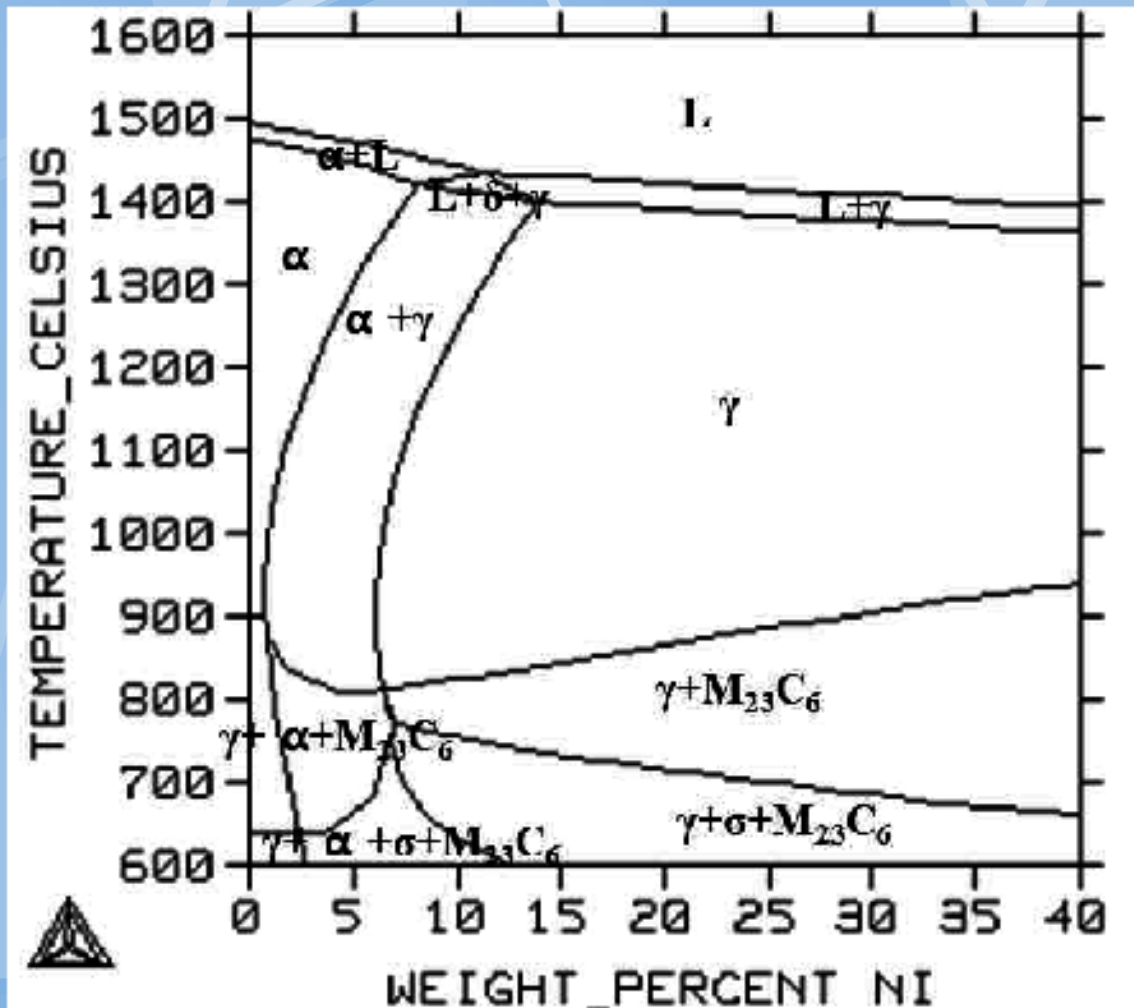
$$n_A = \frac{P(\triangle SBC)}{P(\triangle ABC)} \quad \text{a pod. pro } P_B, P_C$$

Slitiny Fe



316L stainless steel

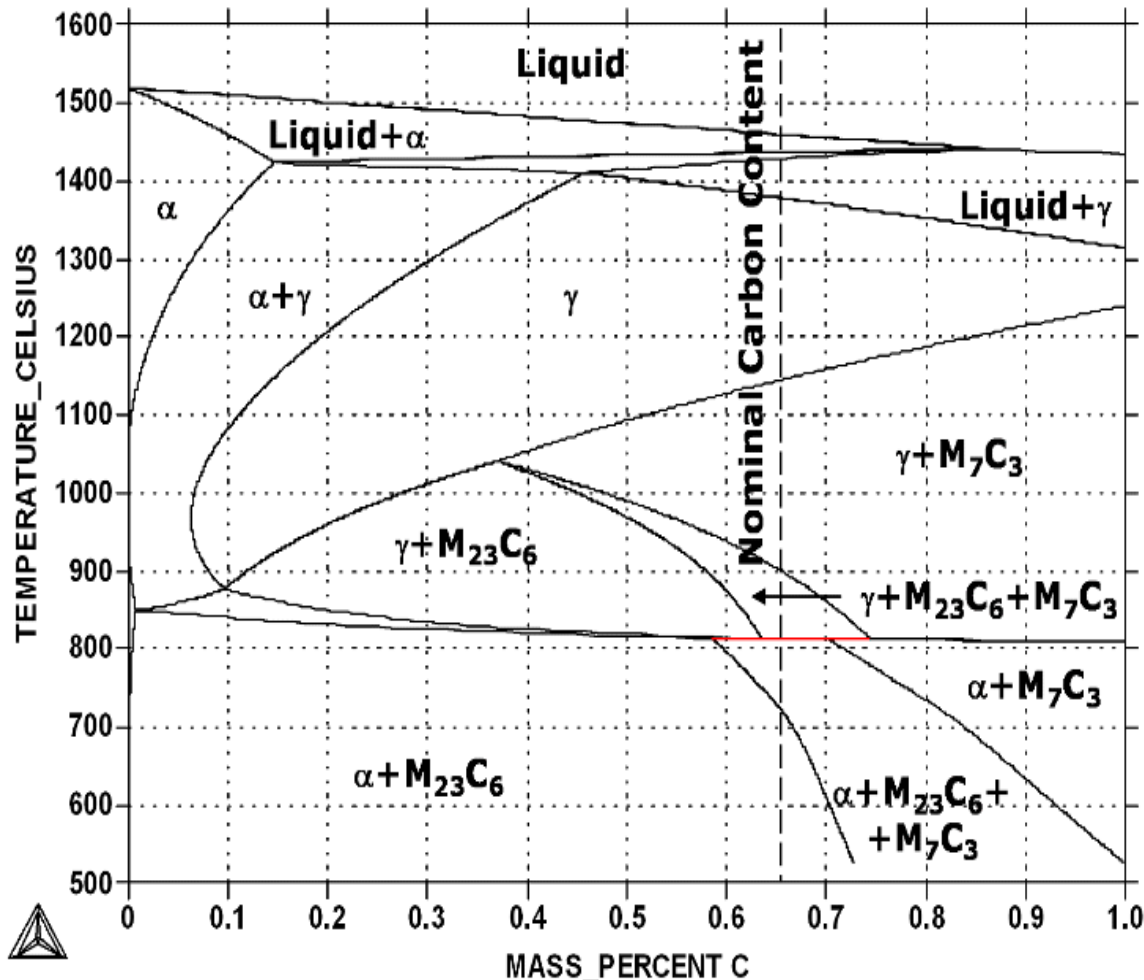
Phase diagram of commercial 316L stainless steel plotted by using ThermoCalc program. A typical composition of 18% chromium and 10% nickel + stopy C



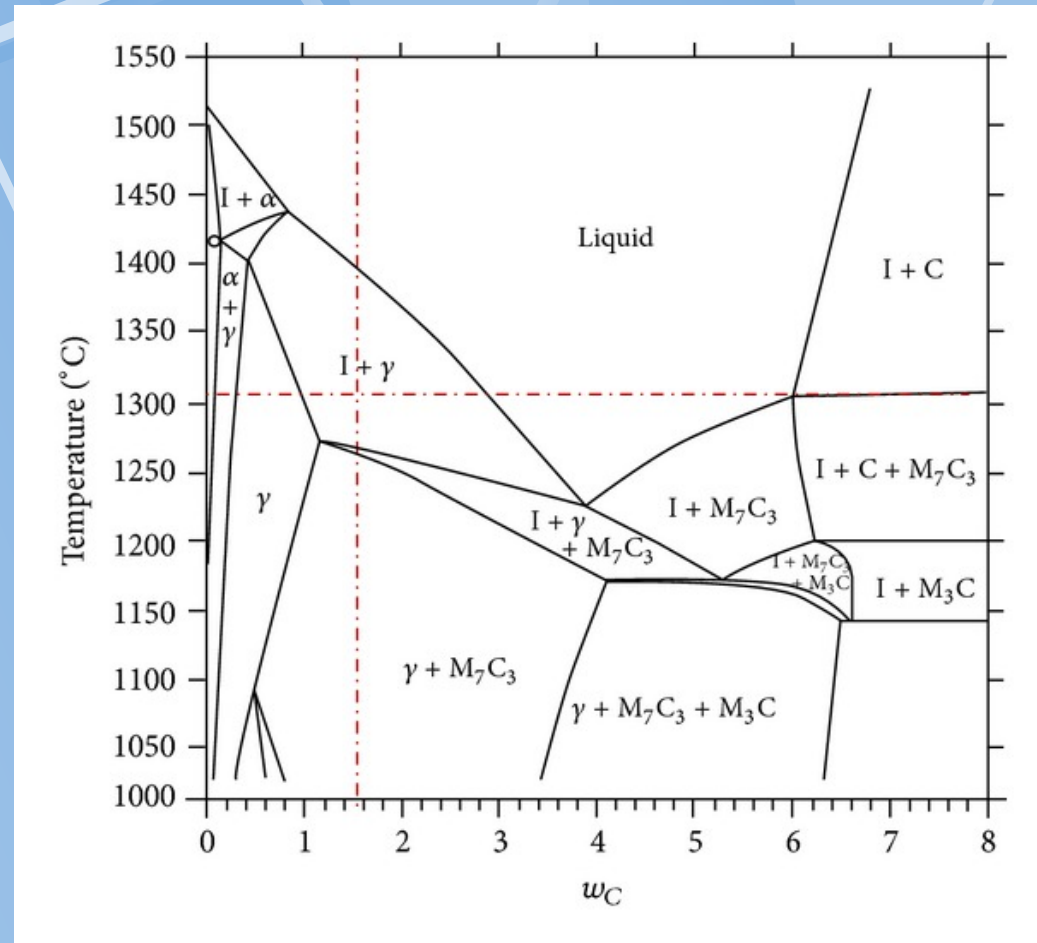
Legovaná Cr ocel

Phase diagram of Uddeholm AEB-L stainless steel (in deg. Celsius) calculated with Thermo-Calc, coupled with TCFE3 thermodynamic database. Silicon and manganese were excluded from thermodynamic calculations.

C = 0.65wt%
Cr = 12.8
Si = 0.4
Mn = 0.65



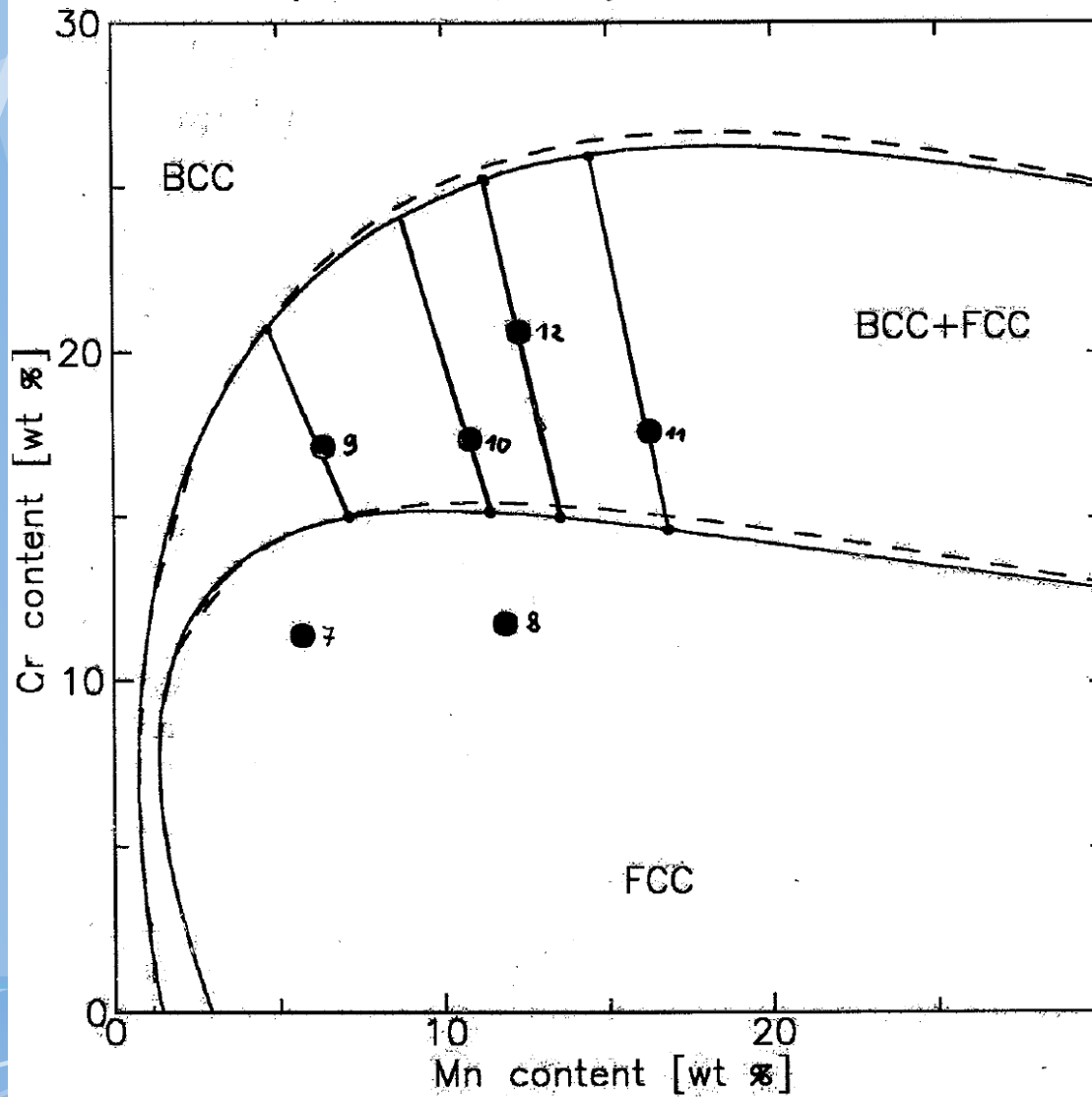
Binary phase diagram of AISI D2 tool steel with variable carbon content



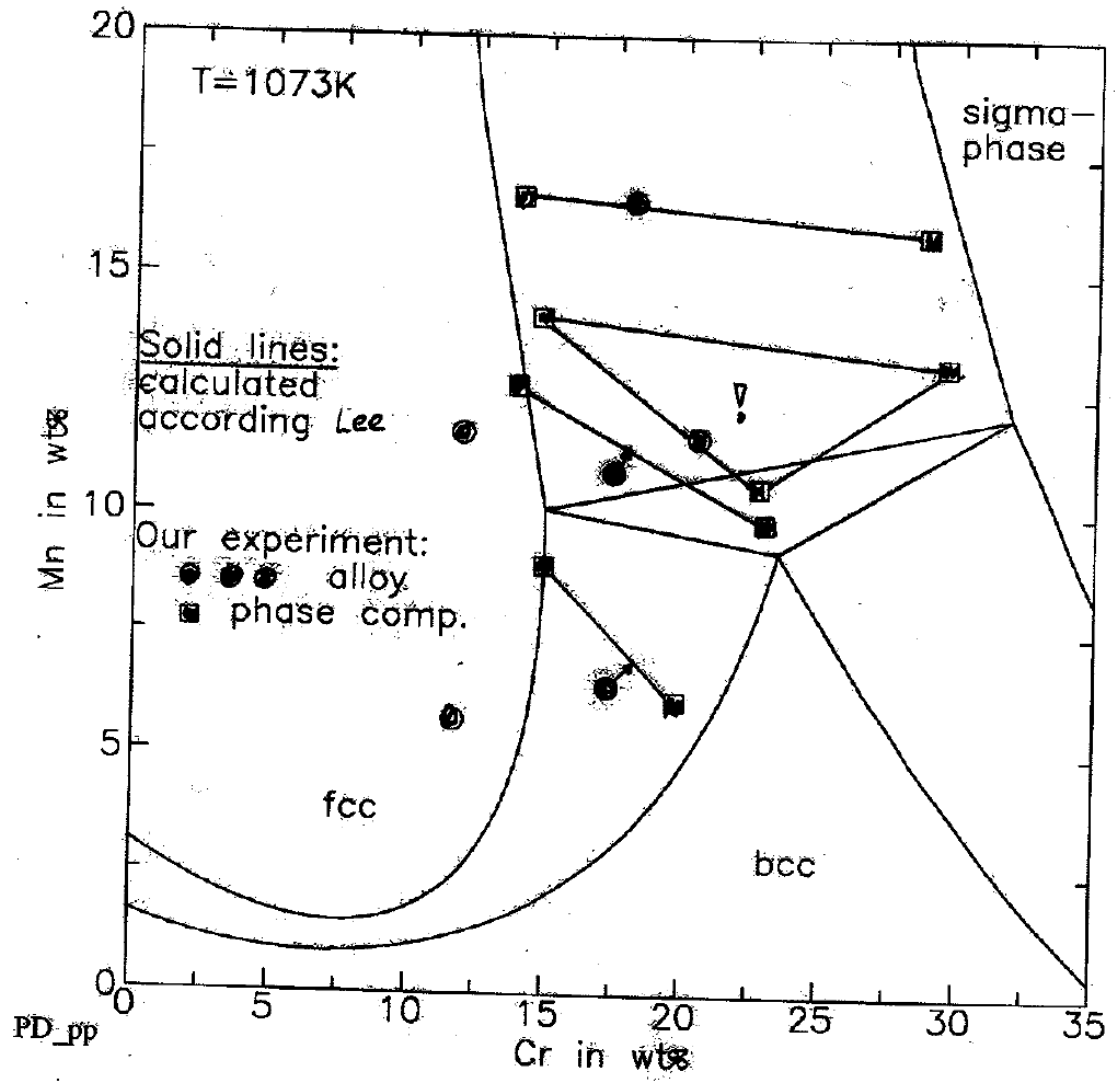
Typical chemical composition of AISI D2 Steel

C	Si	Cr	Mo	V
1.50%	0.30%	12.00%	0.80%	0.90%

System: Fe-Cr-Mn
(isothermal cross-section at 1073K)
(iron rich corner)



Isothermal cross-section of the Fe-Cr-Mn phase diagram at 1073K



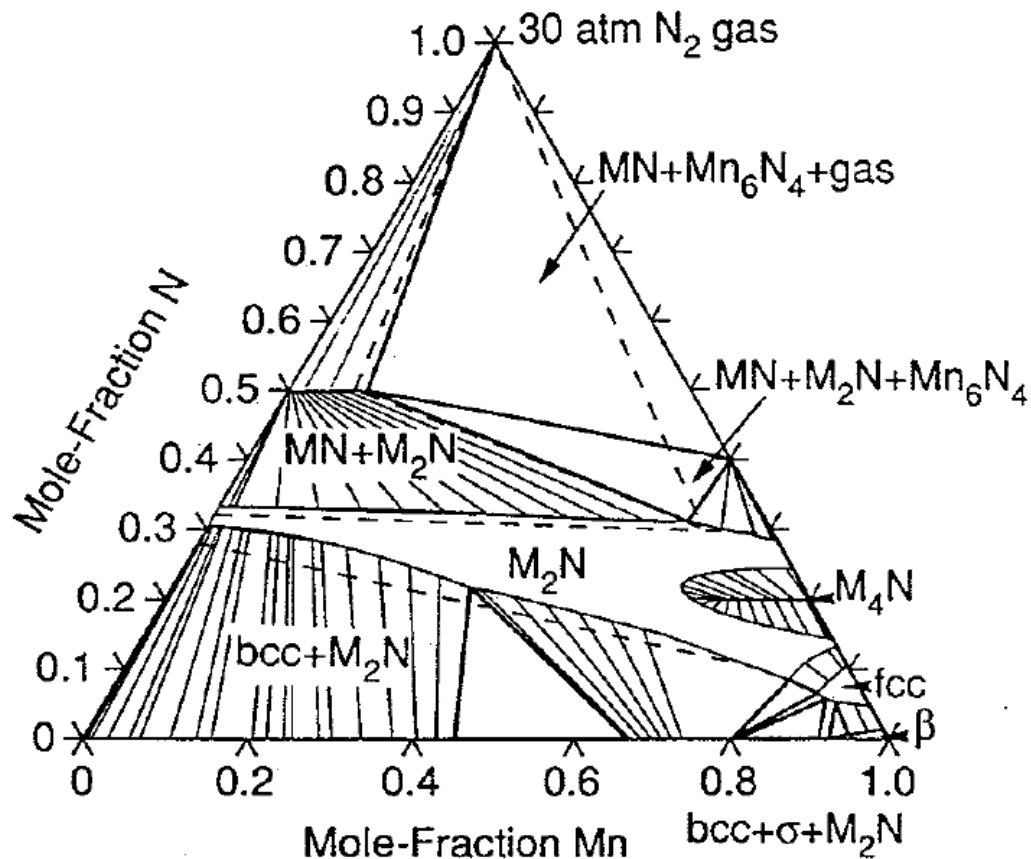


FIG.11

The calculated isothermal section at 1073K through the Cr-Mn-N phase diagram, showing equilibria with 30 atm N₂ gas. The full lines show the calculations, and the dashed lines have been redrawn from the experimental study by Ettmayer et al. ⁽⁴⁾. The Mn₆N₄ phase is stable in the calculated phase diagram, but it was not found experimentally.

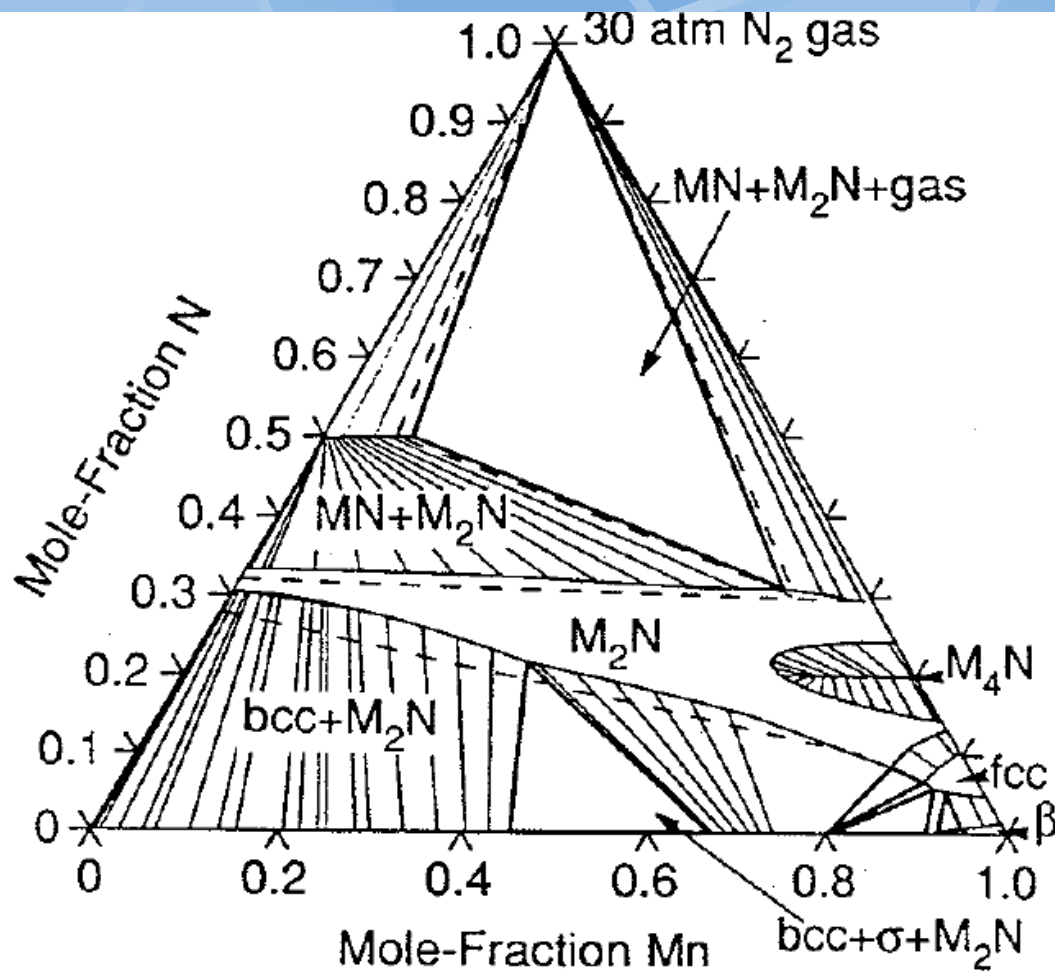
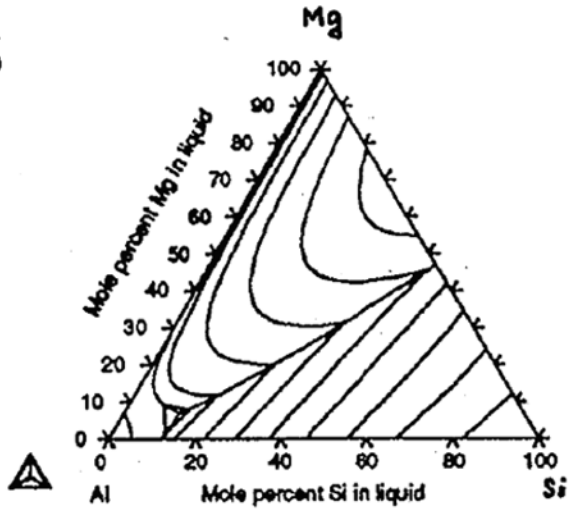


FIG.12

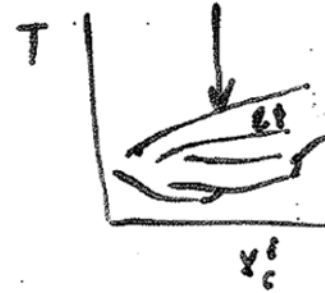
The calculated isothermal section at 1073K through the Cr-Mn-N phase diagram, showing equilibria with 30 atm N_2 gas. The full lines show the calculations, and the dashed lines have been redrawn from the experimental study by Etmayer et al.⁽⁴⁾. The Mn_6N_4 and the Mn_6N_5 phases were suspended from the calculation.

THERMO-CALC, DEMO

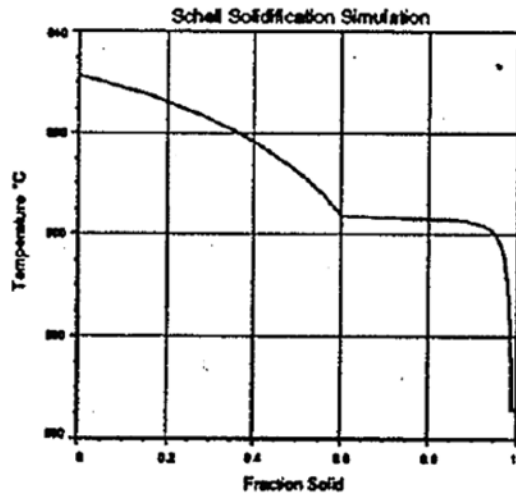
6



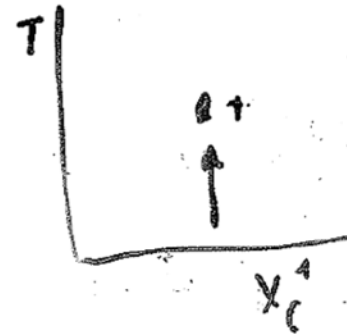
Plocha likvidy:



12

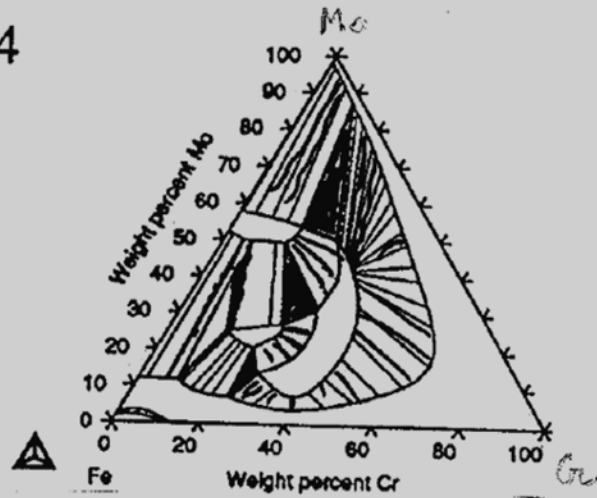


Plocha solida



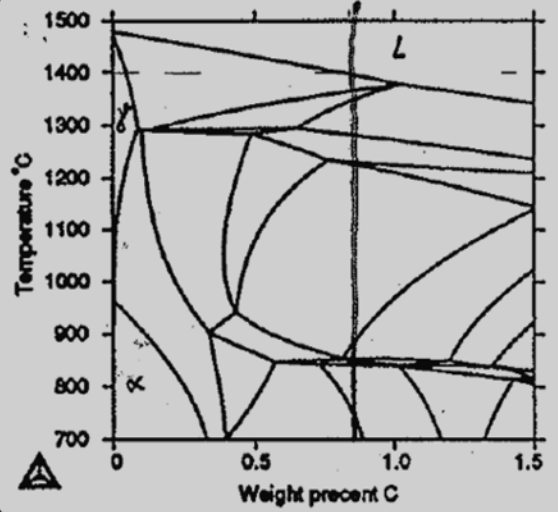
THERMO-CALC, DEMO

4

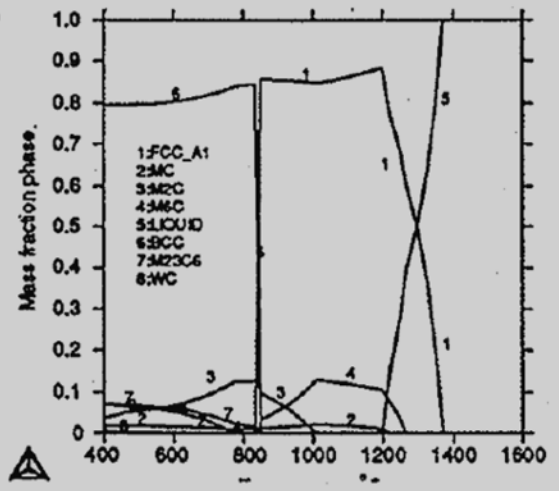


T = 1000°C
 Δ 80

7



8



10

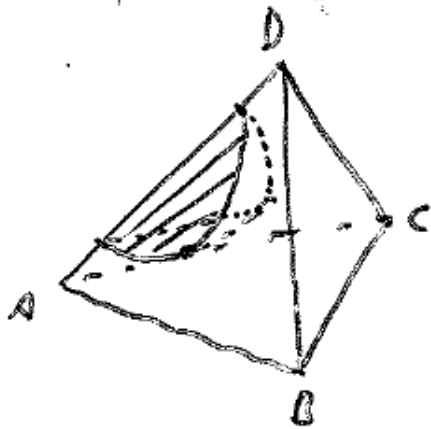
M42-steel: $\{Co, Cr, Mn, Si, Mo, W, V\} = const.$

0.8 wt% C

Quaternární soustavy $S=4$

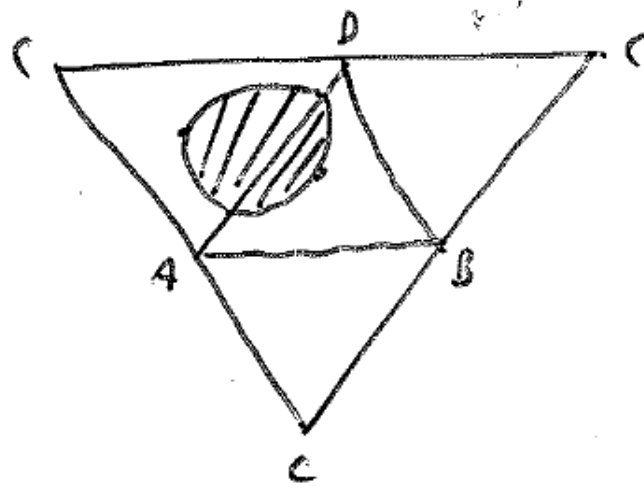
α , 2+dimenze
- fixace jedné složky, fixace podílu 2 složek \Rightarrow
pseudo binární diagram

β , 3+dimenze



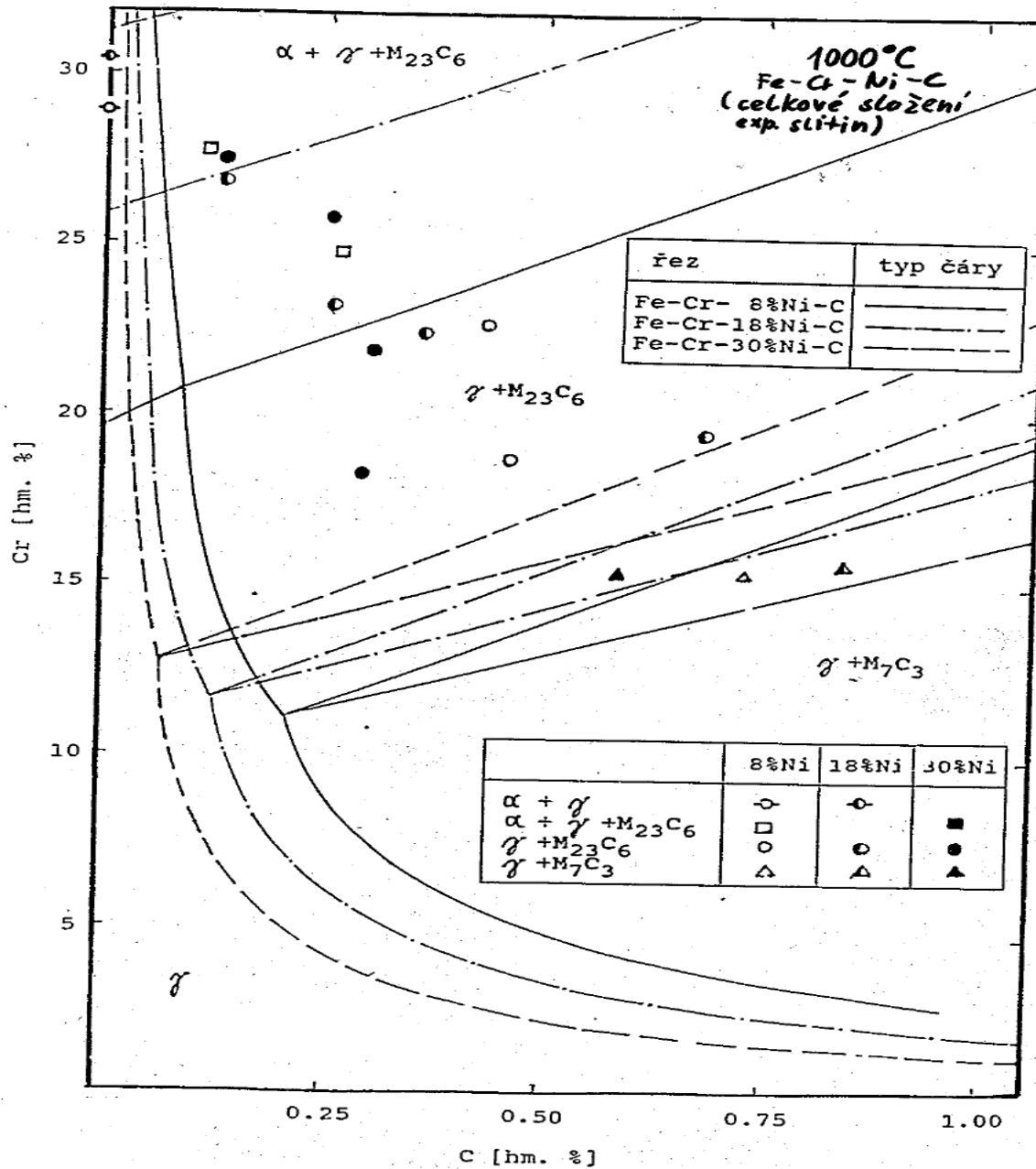
\longrightarrow
rozbalení

2+ dimenze

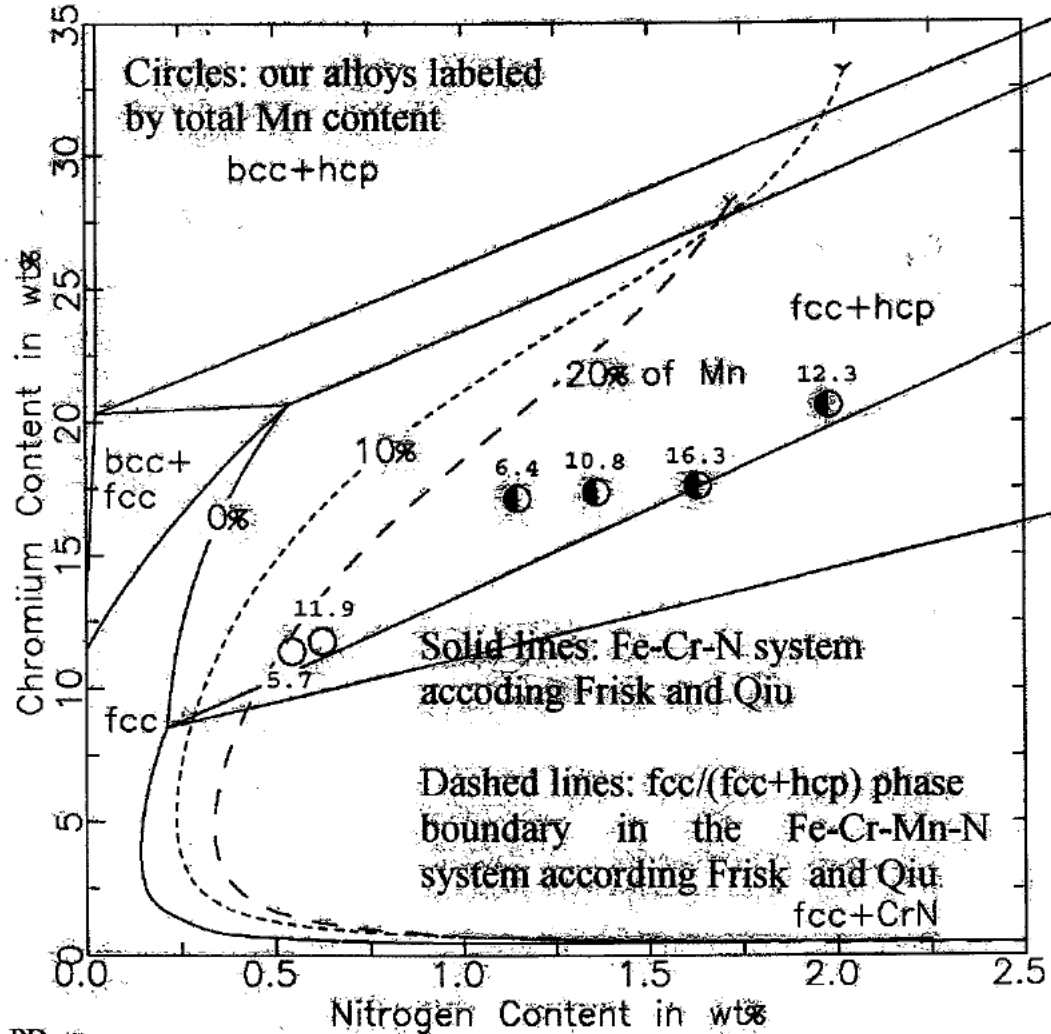


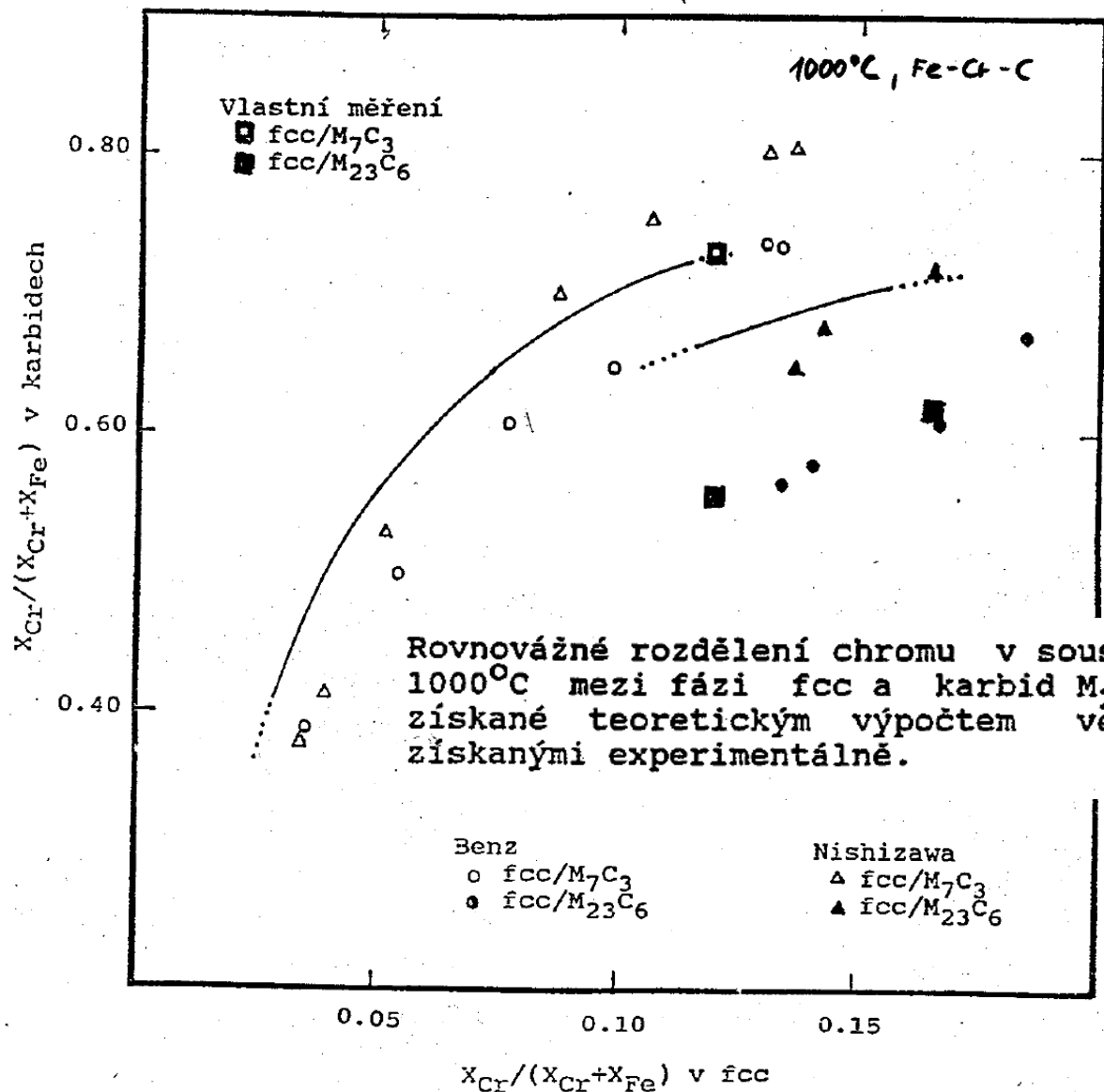
κ , 2+ dimenze \triangle viz příklady.

Obr.6a: Vypočtený izotermický řez rovnovážným fázovým diagramem soustavy Fe-Cr-Ni-C pro teplotu 1000°C. V diagramu jsou vyznačeny body reprezentující celkové chemické složení experimentálních slitin.



Isothermal cross-sections of the fcc/(fcc+hcp) phase boundary in the Fe-Cr-Mn-N phase diagram at 1273K

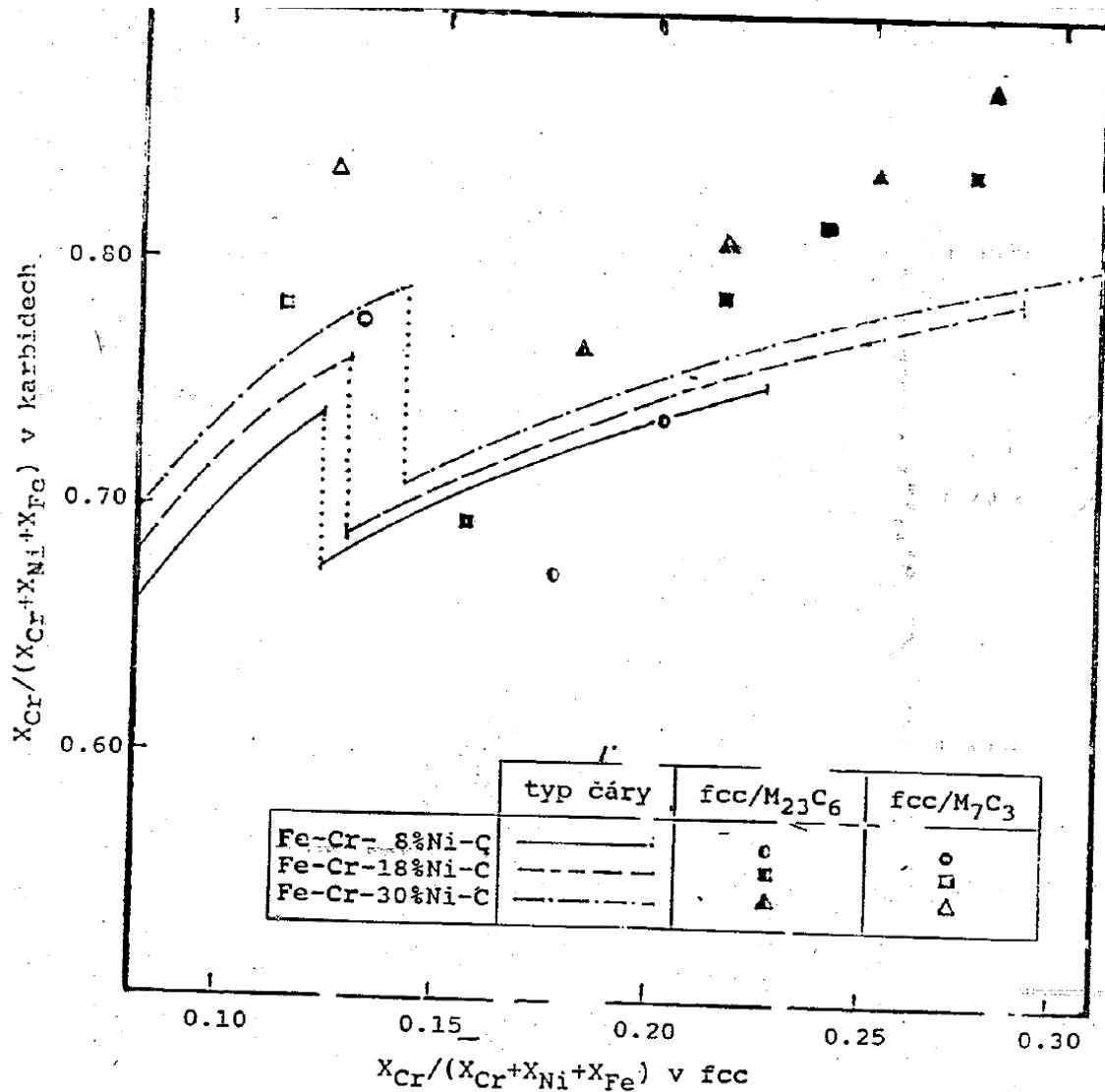




Rovnovážné rozdělení chromu v soustavě Fe-Cr-C za teploty 1000°C mezi fází fcc a karbid M₂₃C₆ resp. karbid M₇C₃ získané teoretickým výpočtem ve srovnání s hodnotami získanými experimentálně.

molární podíl chromu vztažený na obsah kovových složek ve fázi fcc

Rovnovážné rozdělení chromu v soustavě Fe-Cr-Ni-C za teploty 1000°C mezi fází fcc a karbidem $M_{23}C_6$ resp. karbidem M_7C_3 získané teoretickým výpočtem ve srovnání s hodnotami získanými experimentálně.



Diskuse

The image features a solid blue background with several white, semi-transparent lines of varying thicknesses and orientations crisscrossing across the frame. A single, thin, bright cyan horizontal line is positioned near the bottom edge of the image. The word "Diskuse" is centered in the upper half of the image in a dark grey, sans-serif font.