Figures for 4.2

**Fig. 2.** Xe adsorption on Pd(110) at 77 K. (a) work-function change, (b) Xe Auger peak-to-peak amplitude, (c) Xe overlayer LEED beam intensity vs. Xe exposure. From [71P].

**Fig. 3.** Work-function change $\Delta \Phi$ vs. coverage $\theta$ for D$_2$ adsorption on Ni(110). $T = 175$ K, $\theta = 1$ ML $= 1.14 \cdot 10^{15}$ atoms cm$^{-2}$. From [87J].

**Fig. 4.** Thermal desorption spectrum and work-function change for desorption of D$_2$ from Ni(110). Initial coverage $= 1.5$ monolayer; adsorption temperature $= 175$ K; heating rate $0.5$ K s$^{-1}$. From [87J].

**Fig. 5.** Work-function change caused by H$_2$ adsorption at 150 K on Ni(111) as a function of the absolute coverage $\theta$. From [79C2].
Fig. 6. Hydrogen adsorption on Pd(100). Calculated coverage dependence of work-function change (filled circles) and experimental results (crosses) from Ref. [80B4]. The work functions were calculated for ordered structures where the hydrogen occupies surface hollow sites up to \( \theta = 1 \) followed by an occupation of subsurface (Oh) sites by the additional hydrogen atoms. From [94W], [94W2].

Fig. 7: Work-function change for H on Pd(100) with coverage \( \theta \). From [80B4].

Fig. 8. Thermal desorption spectra (upper curve) and work-function change (lower curve) for 5 L H\textsubscript{2} adsorbed on the (1 x 1)-like structure of Pt(100) at 100 K. The most prominent peaks are labeled a\textsubscript{1}, a\textsubscript{2}, and b, respectively. No hydrogen desorption below 100 K could be detected. A work-function change of 0 eV corresponds to the work function of the clean hex-rhot surface (\( \Phi = 5.75 \) eV). From [91P3].

Fig. 9. Work-function change vs. coverage for H\textsubscript{2} on W(110), W(100), W(211), and W(111). From [74B].