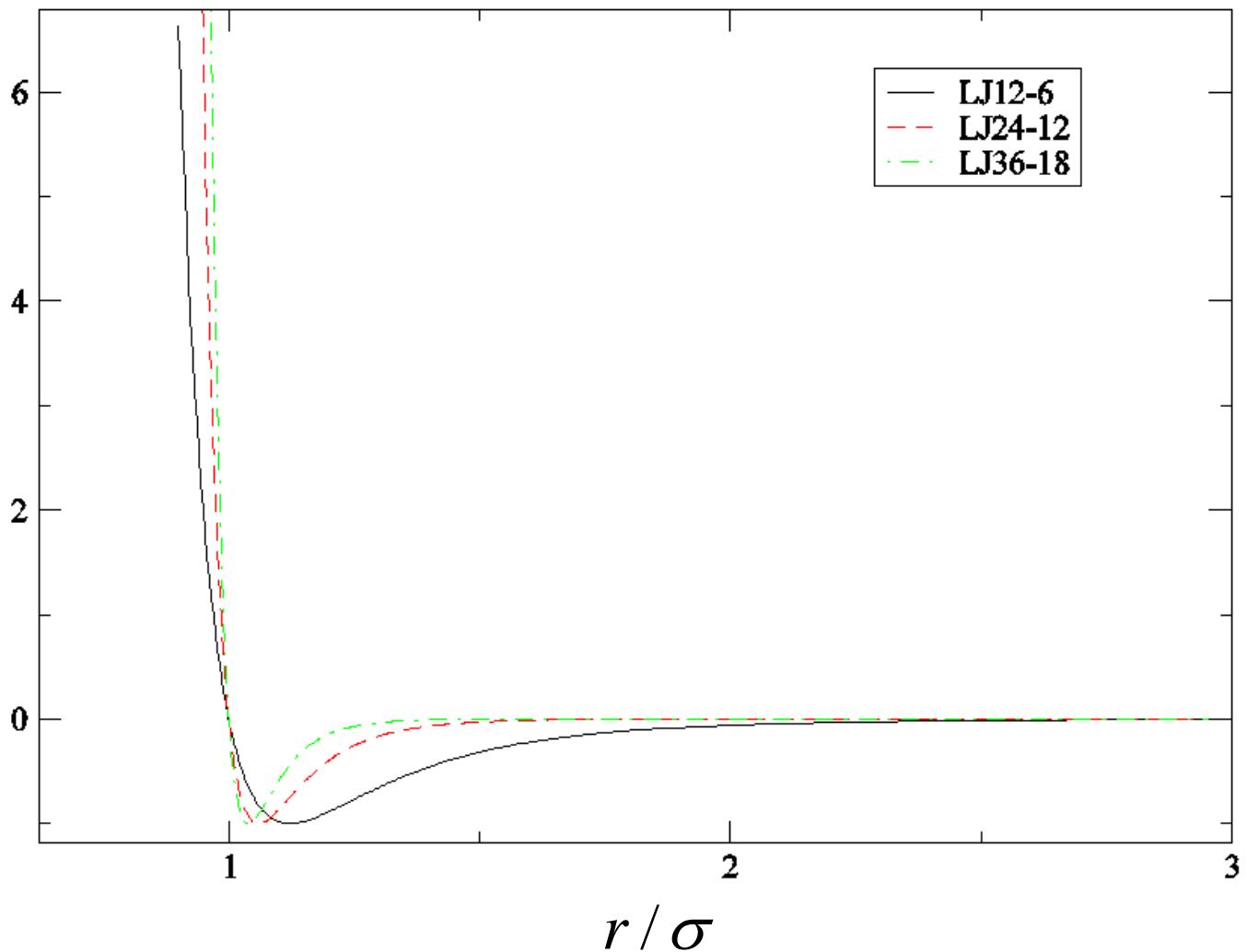
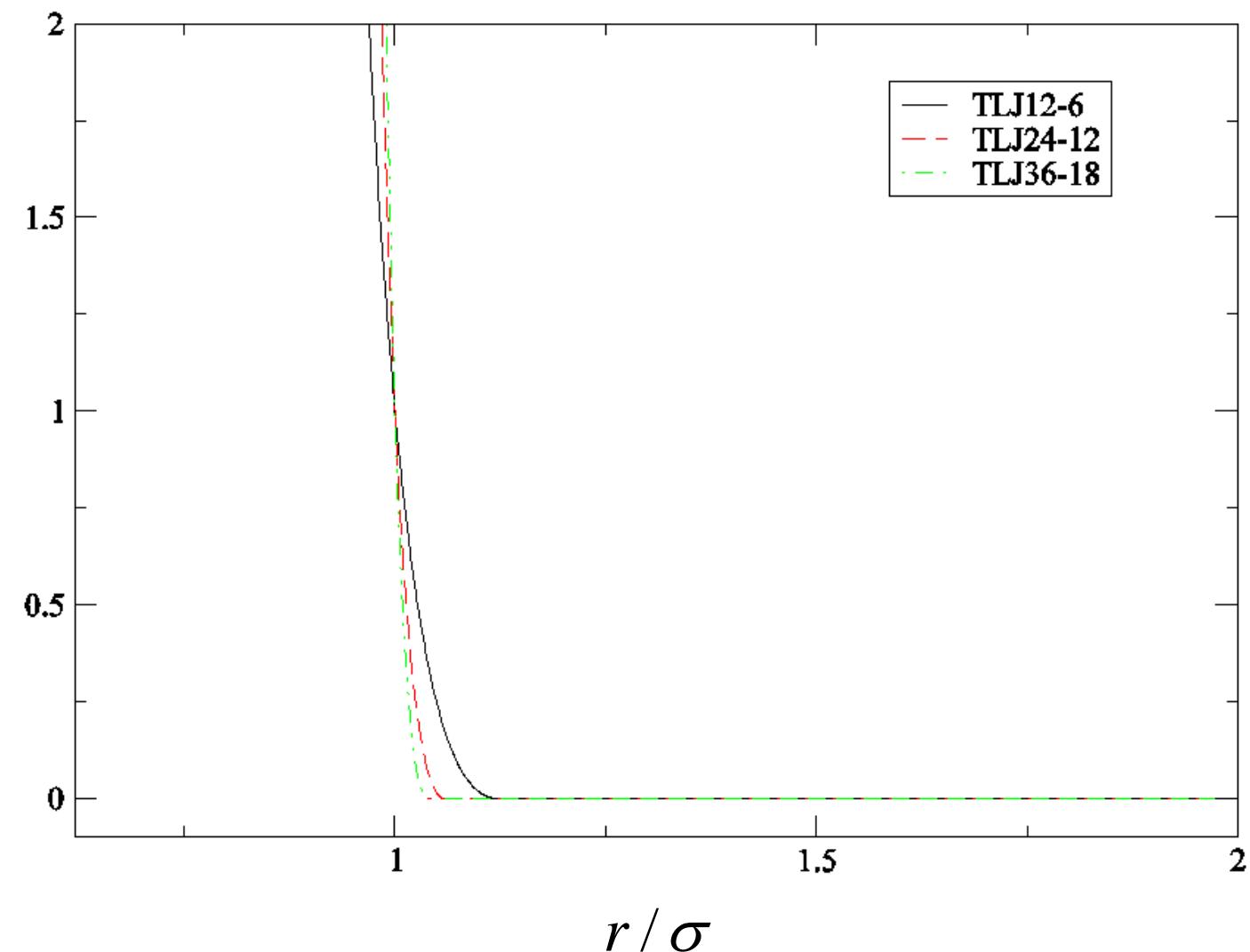


$V(r)$



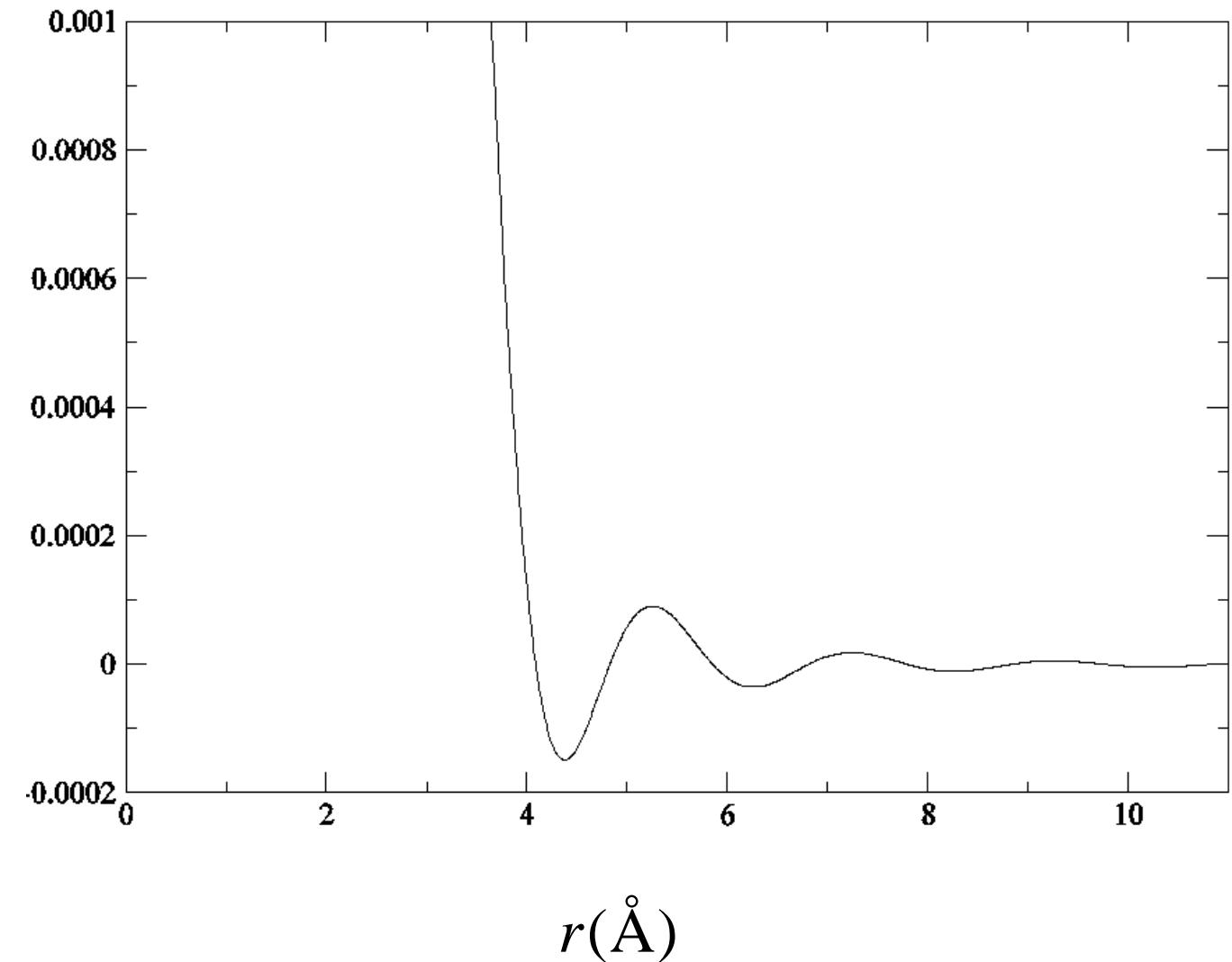
圖一、Lennard-Jones 2n-n 粒子作用位能函數圖

$V(r)$



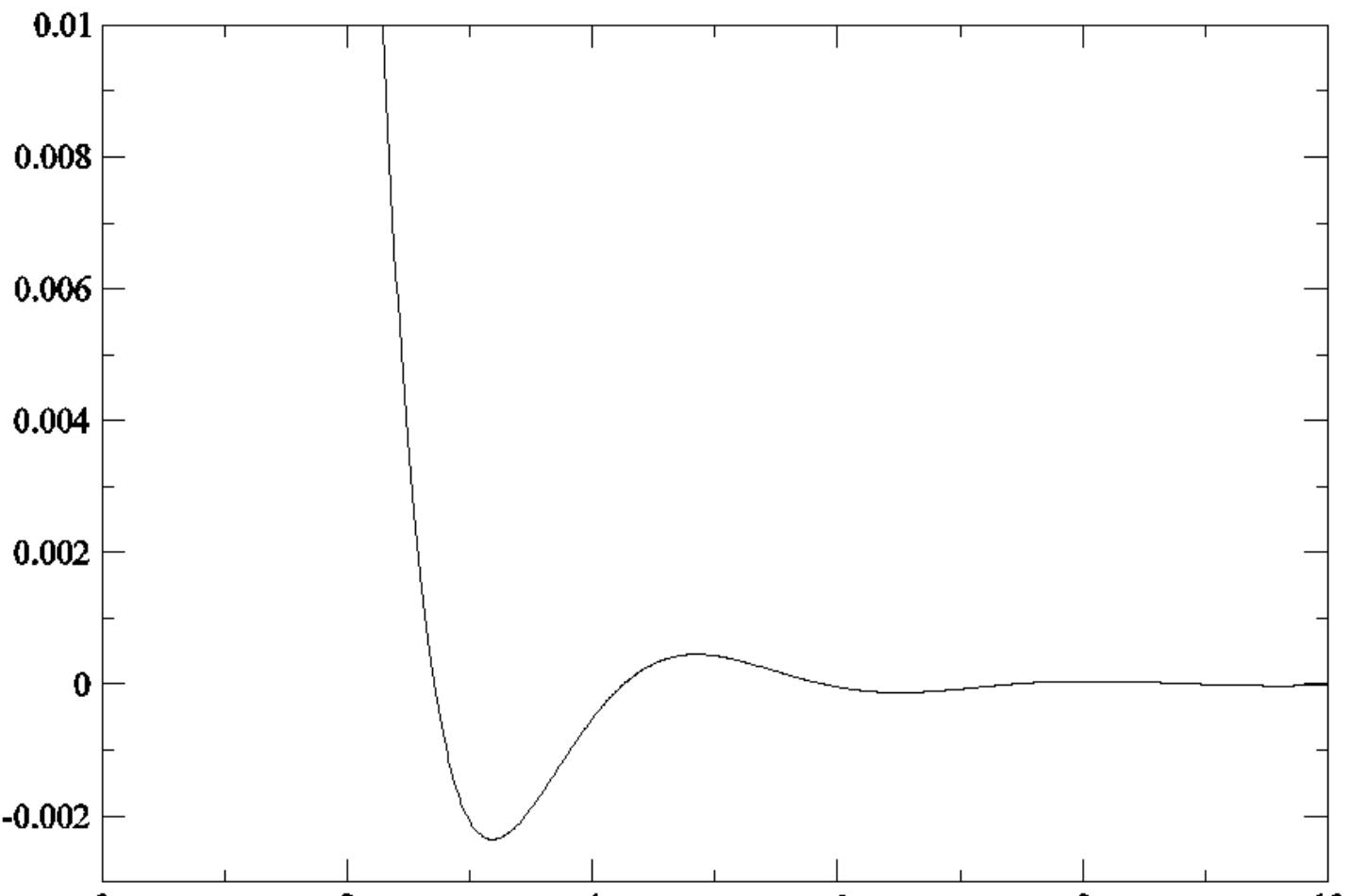
圖二、Truncated Lennard-Jones 2n-n 粒子作用位能函數圖

$V(r)$



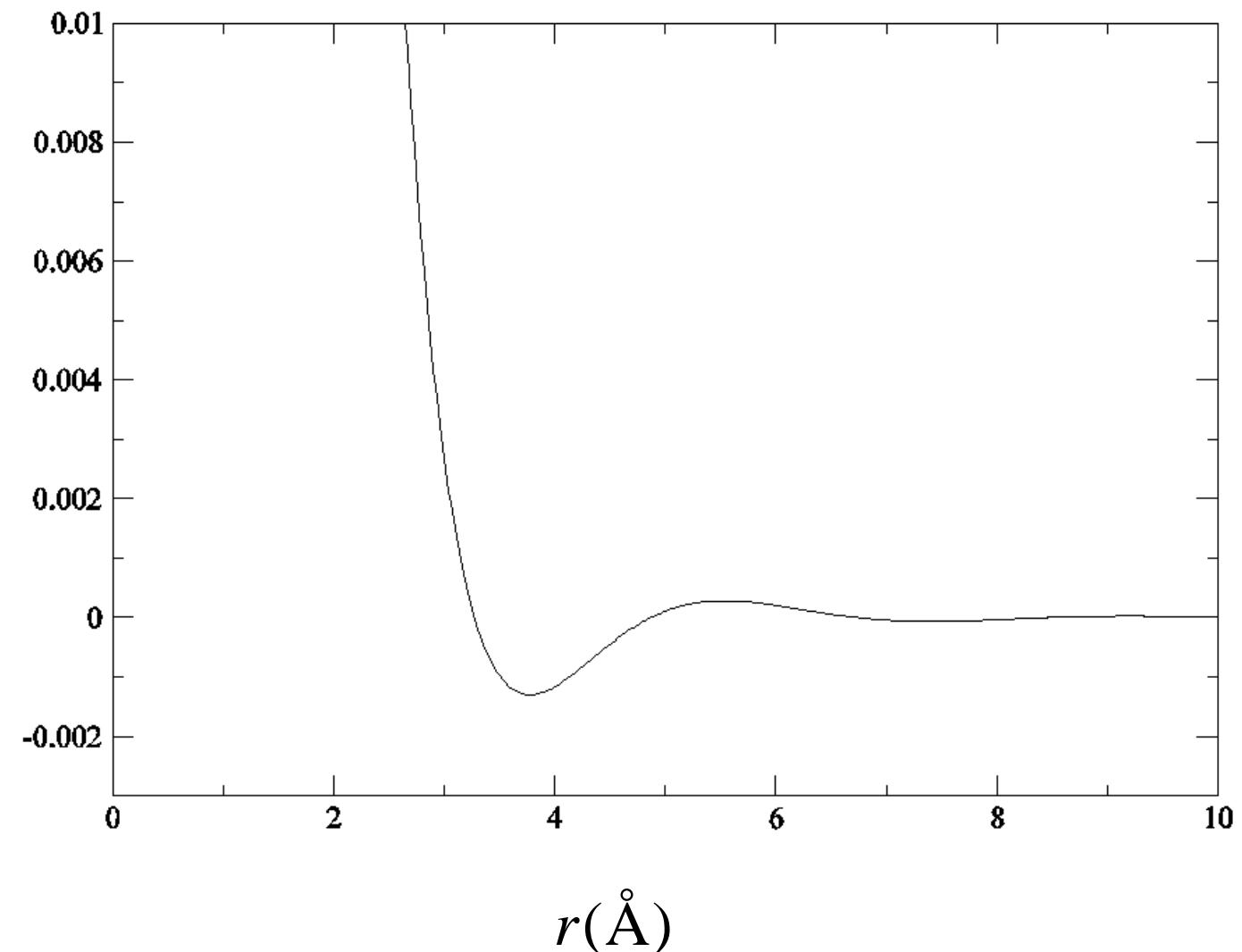
圖三、鎵假位能函數圖($T=973\text{K}$)

$V(r)$



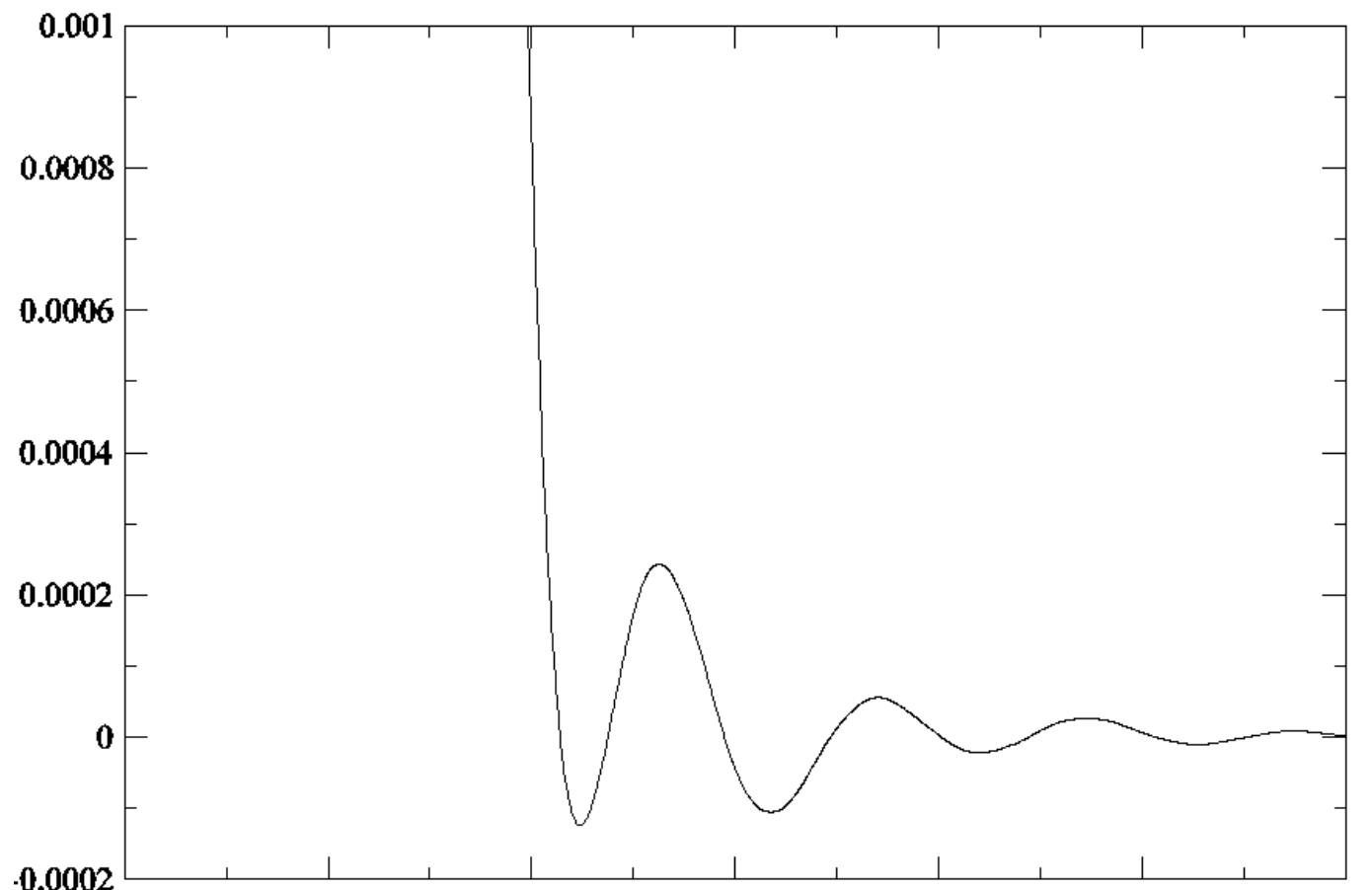
圖四、鋰假位能函數圖 (T=573 K)

$V(r)$



圖五、鈉假位能函數圖($T=723$ K)

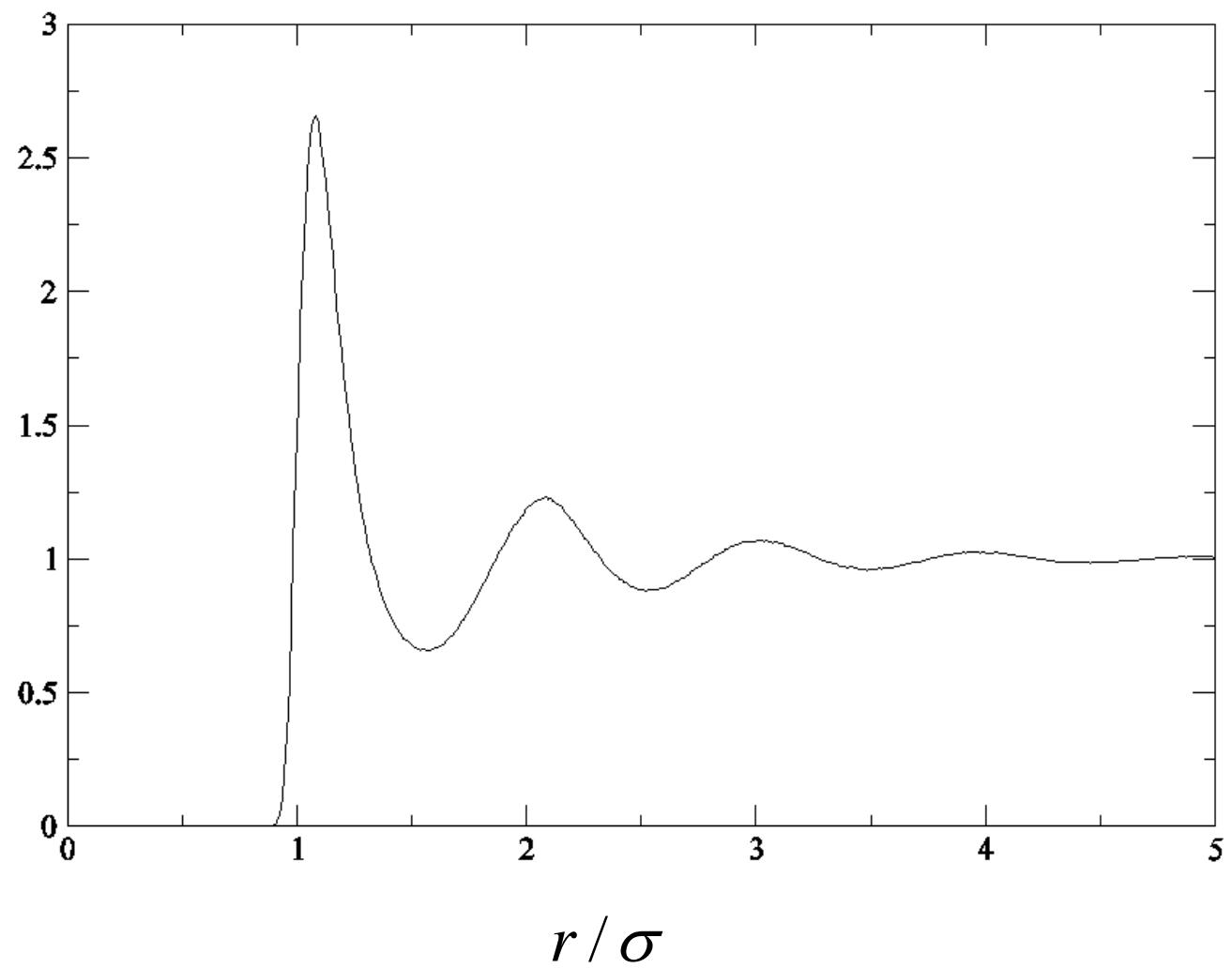
$V(r)$



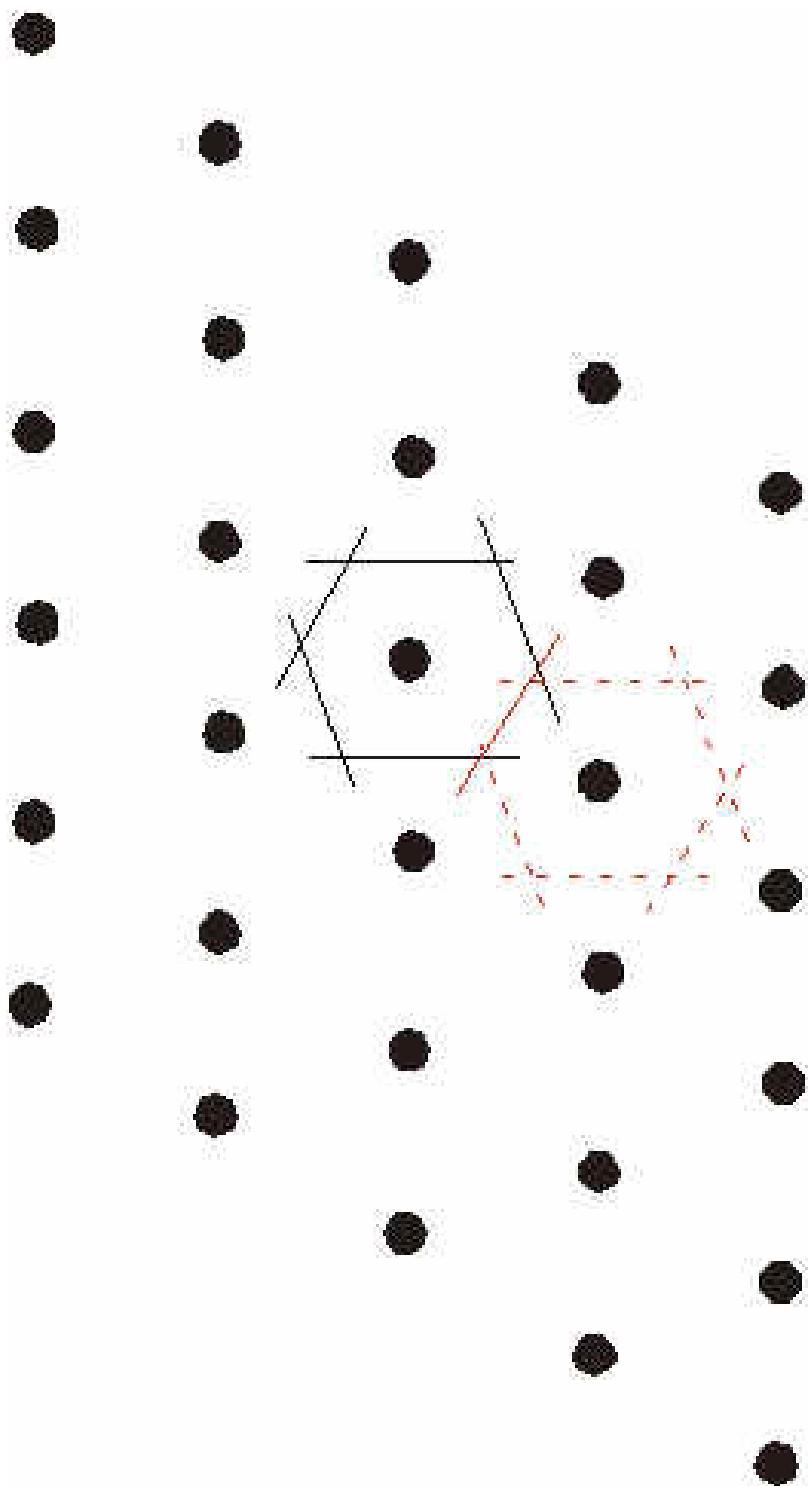
$r(\text{\AA})$

圖六、鉛假位能函數圖($T=823$ K)

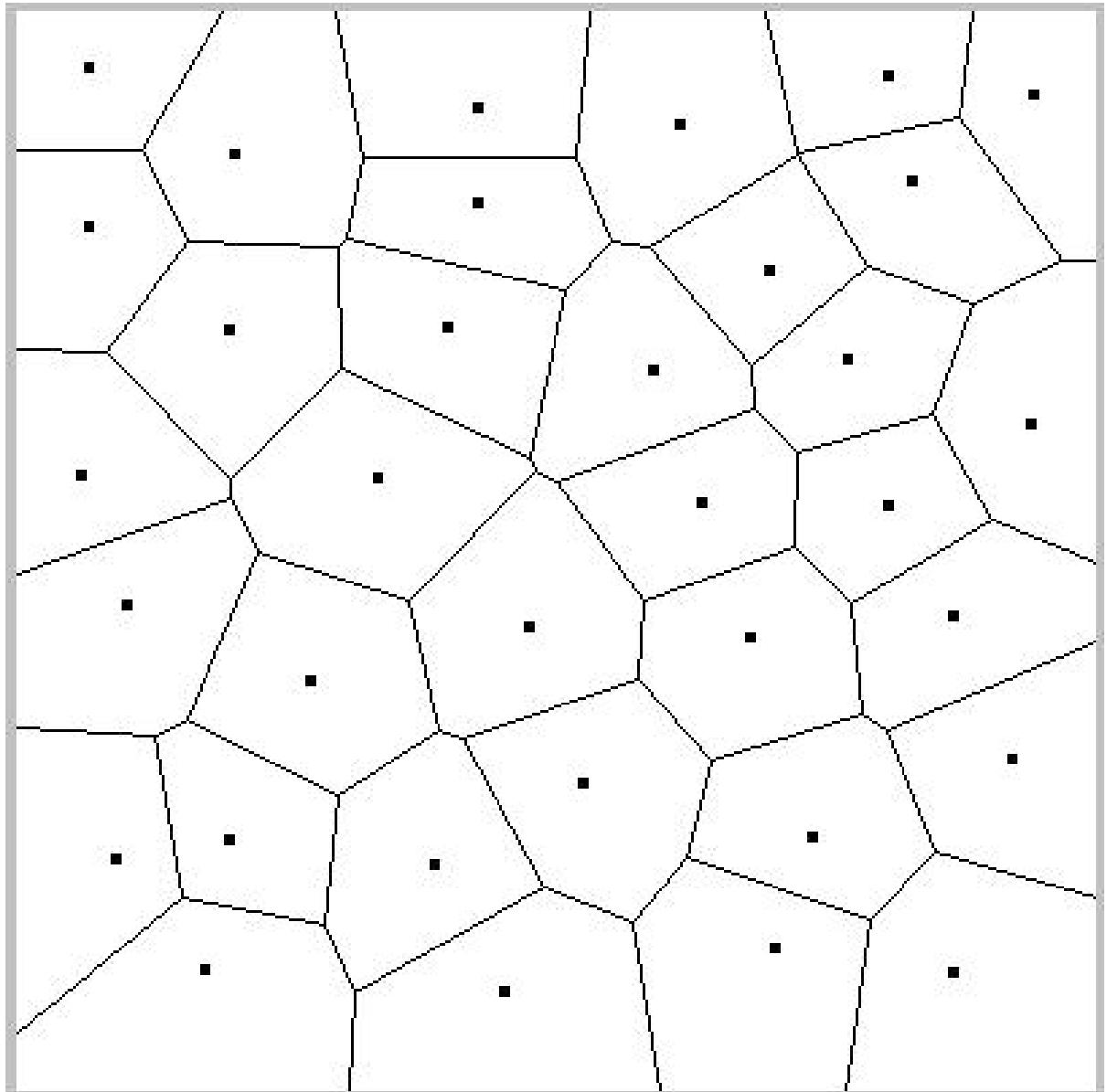
$g(r)$



圖七、粒子徑向分佈函數 $g(r)$ 和 r 的關係圖

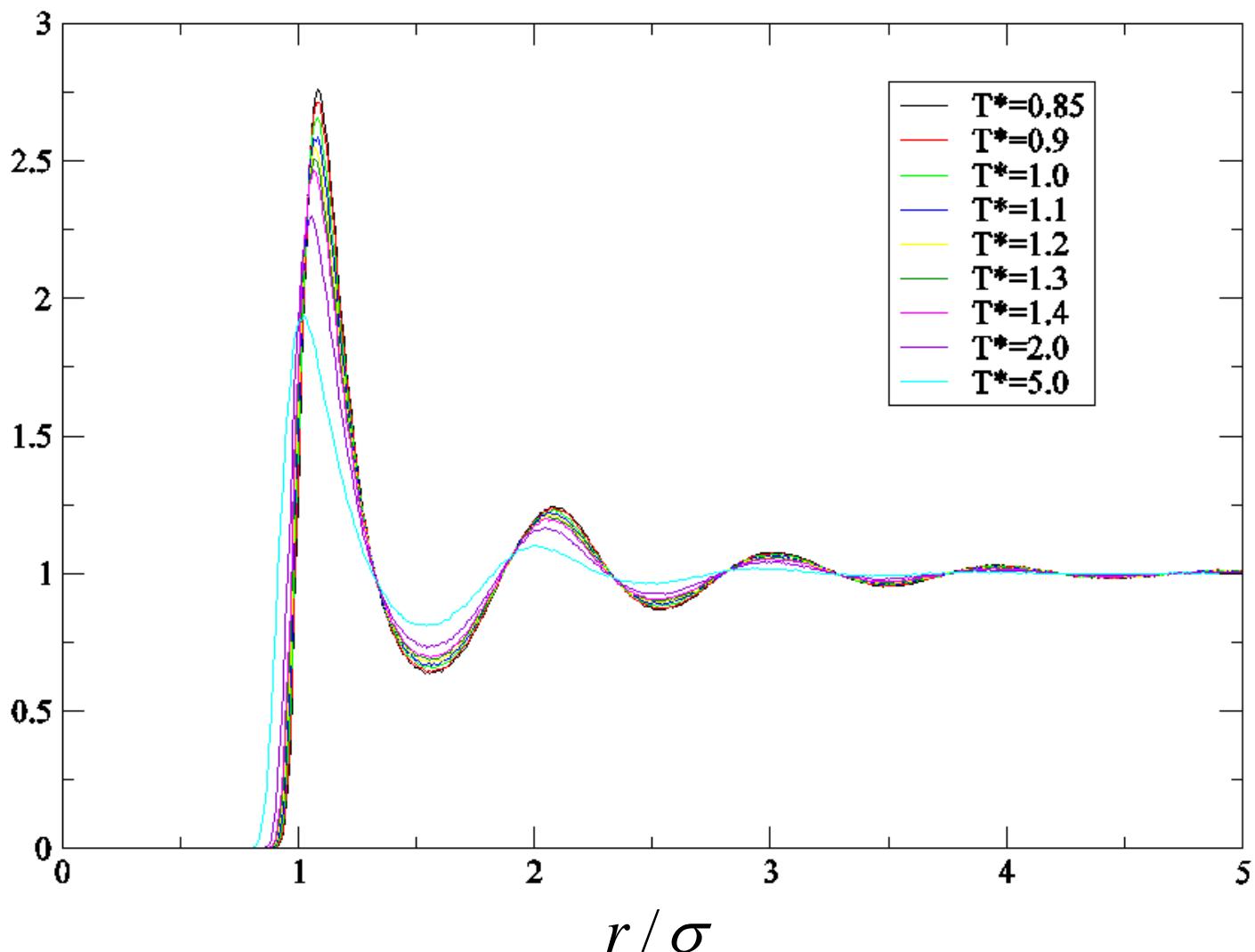


圖八、在晶體中規畫出的Voronoi polyhedron



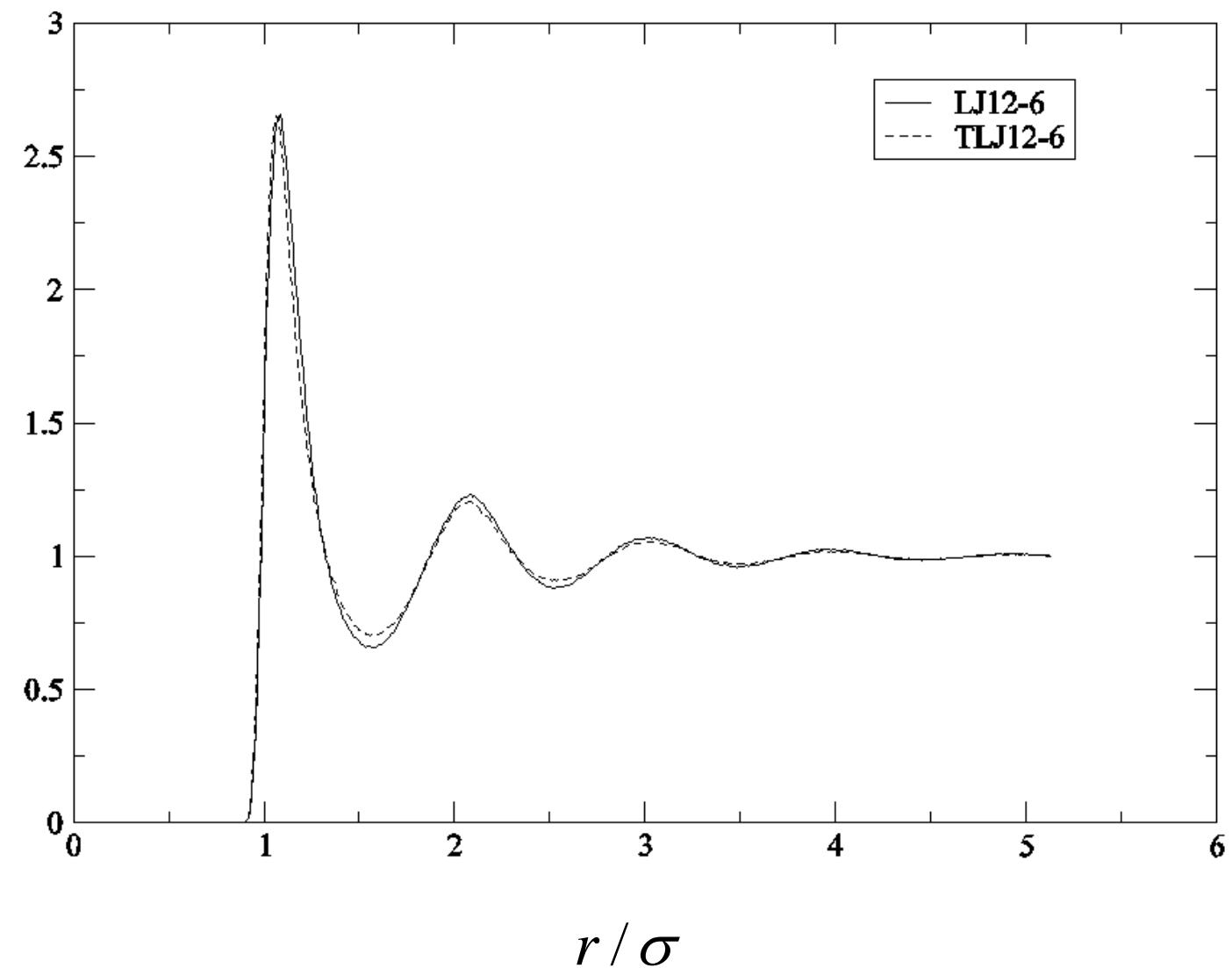
圖九、在二維無序系統中規畫出的Voronoi polyhedron

$g(r)$



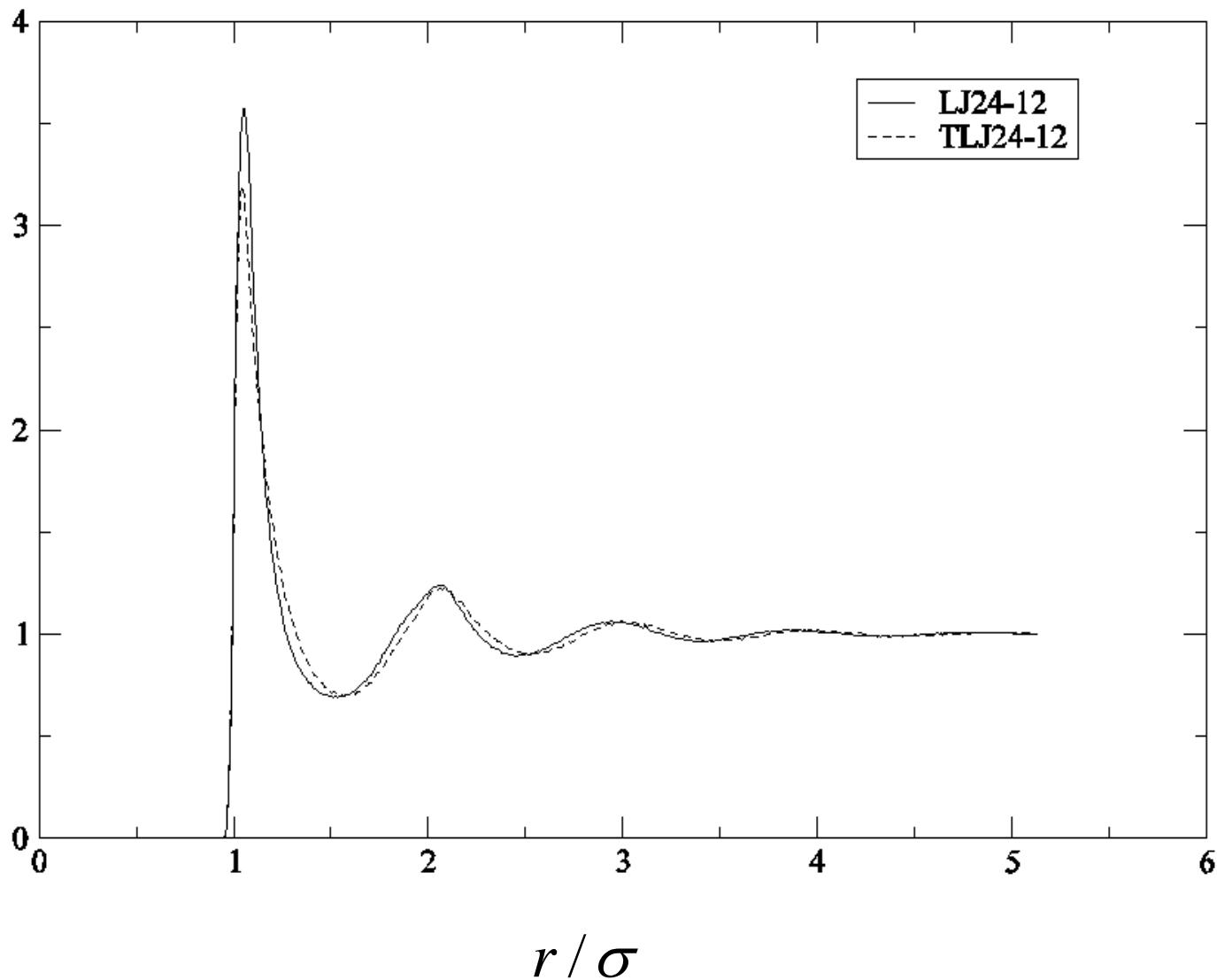
圖十、LJ12-6的粒子徑向分佈函數， $\rho^*=0.8$

$g(r)$



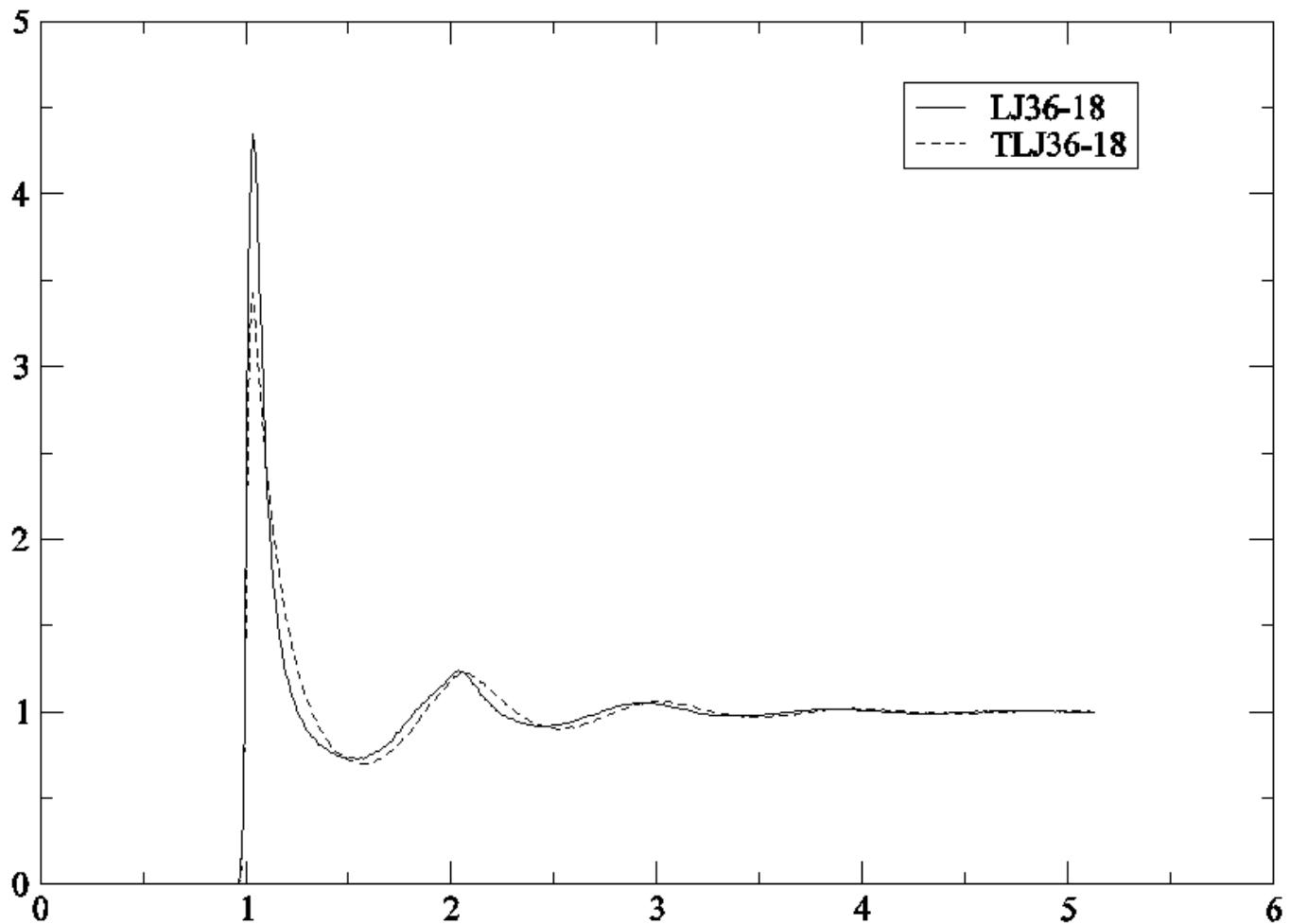
圖十一、 LJ12-6 fluid和TLJ12-6 fluid的
粒子徑向分佈函數， $\rho^*=0.8$ ，
 $T^*=1.0$

$g(r)$



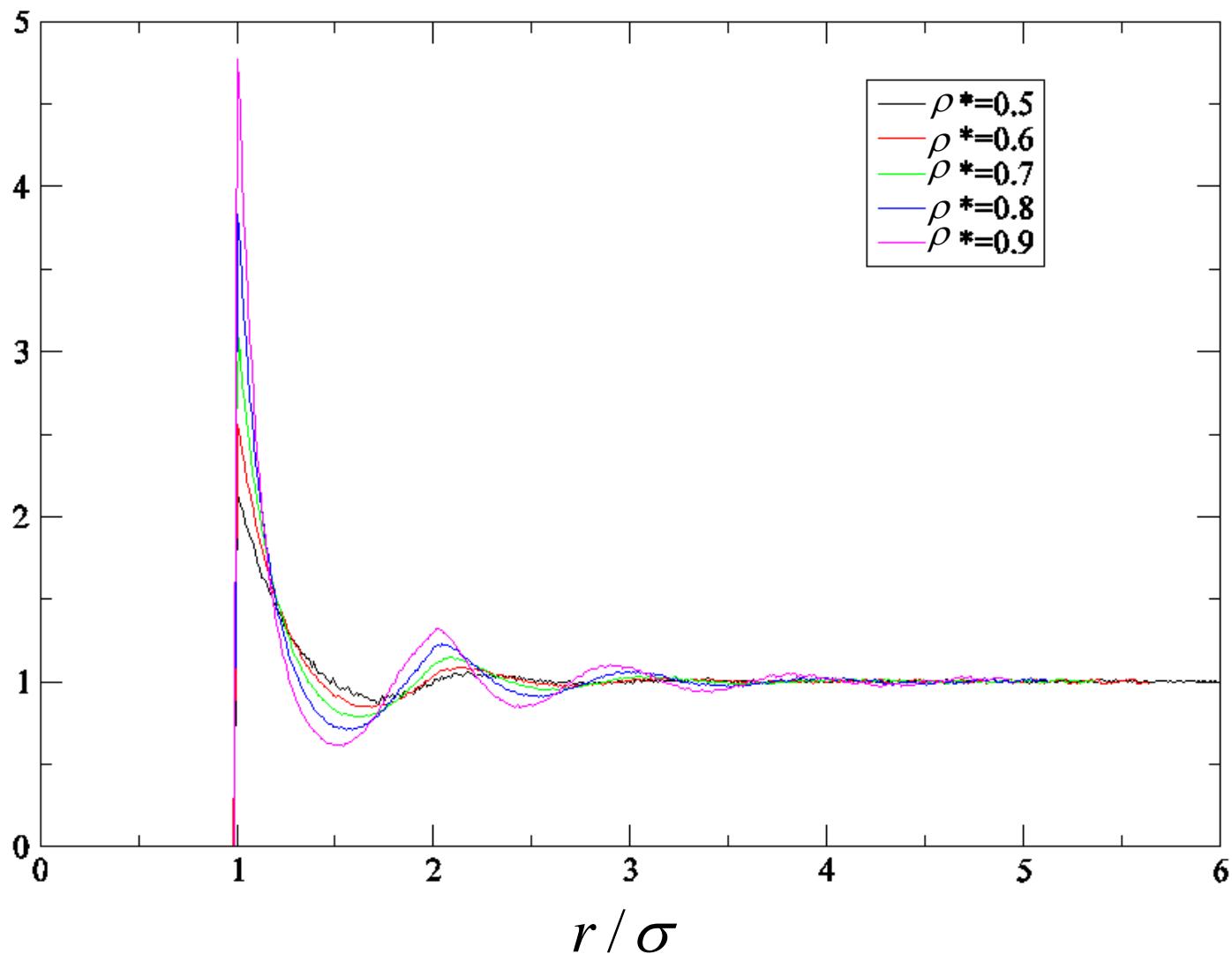
圖十二、LJ24-12 fluid和TLJ24-12 fluid的
粒子徑向分佈函數， $\rho^*=0.8$ ，
 $T^*=1.0$

$g(r)$



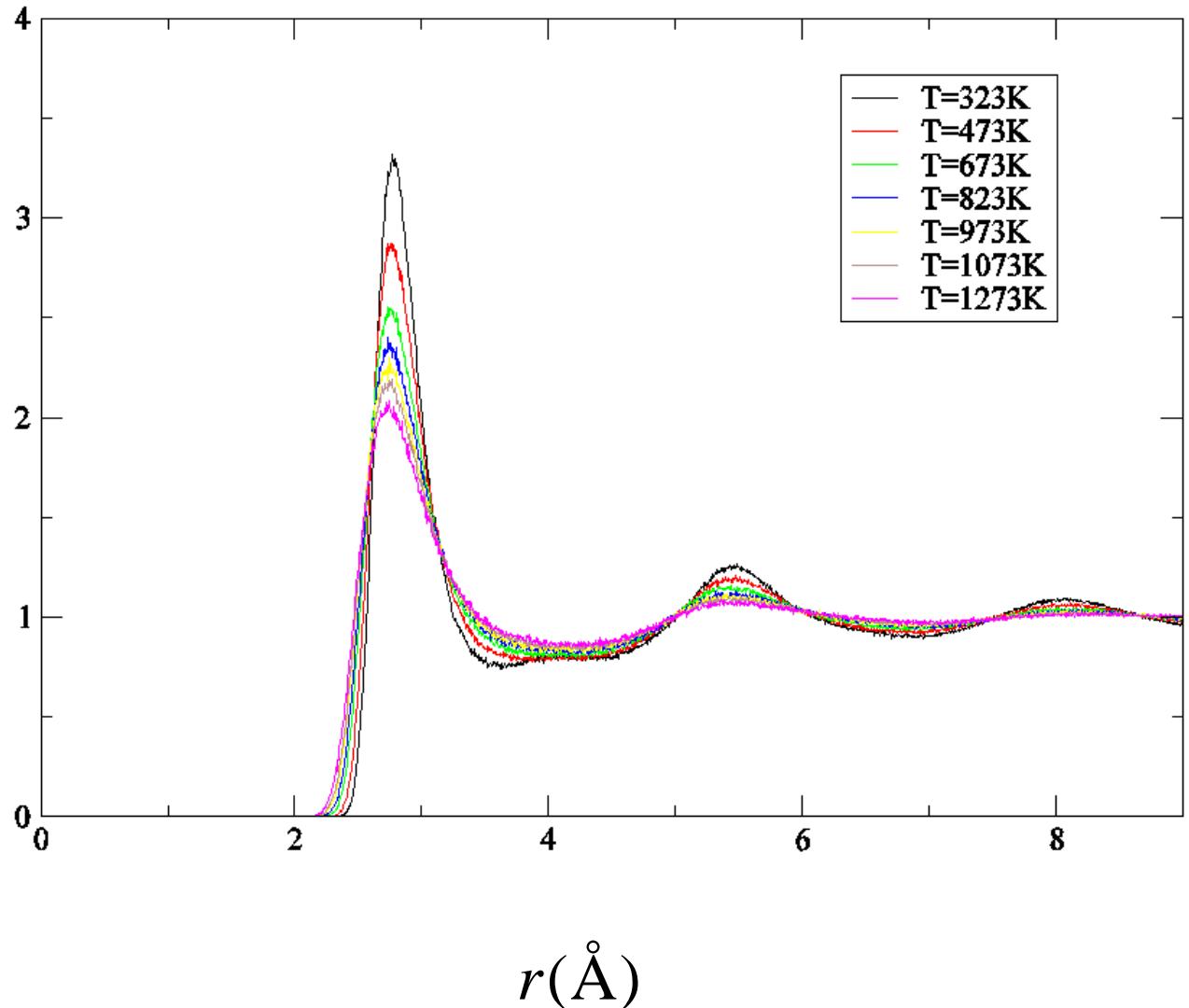
圖十三、LJ36-18 fluid和TLJ36-18 fluid
的粒子徑向分佈函數， $\rho^*=0.8$
 $，T^*=1.0$

$g(r)$



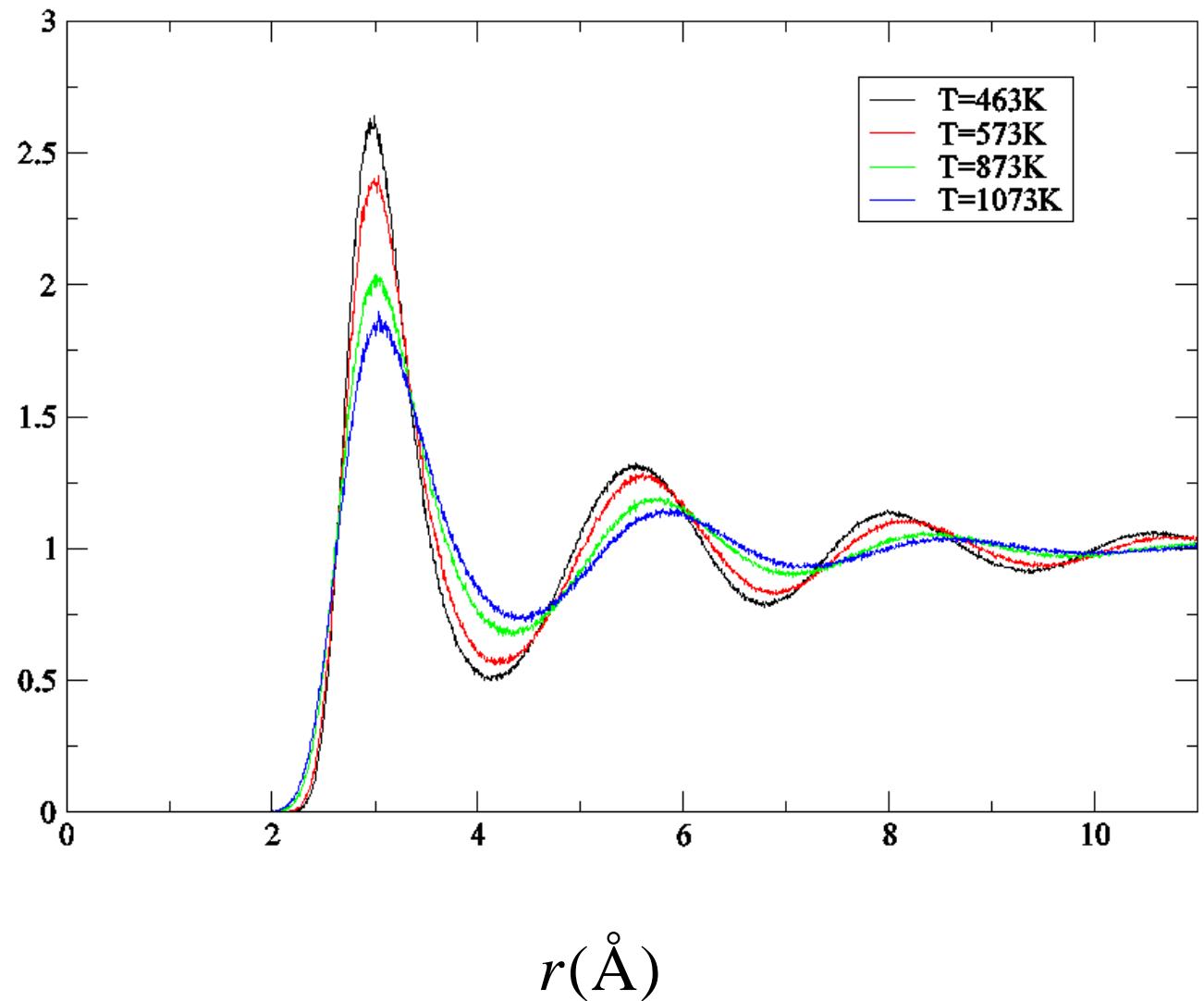
圖十四、Hard Sphere fluid的粒子徑向分佈函數， $T^*=1.0$

$g(r)$



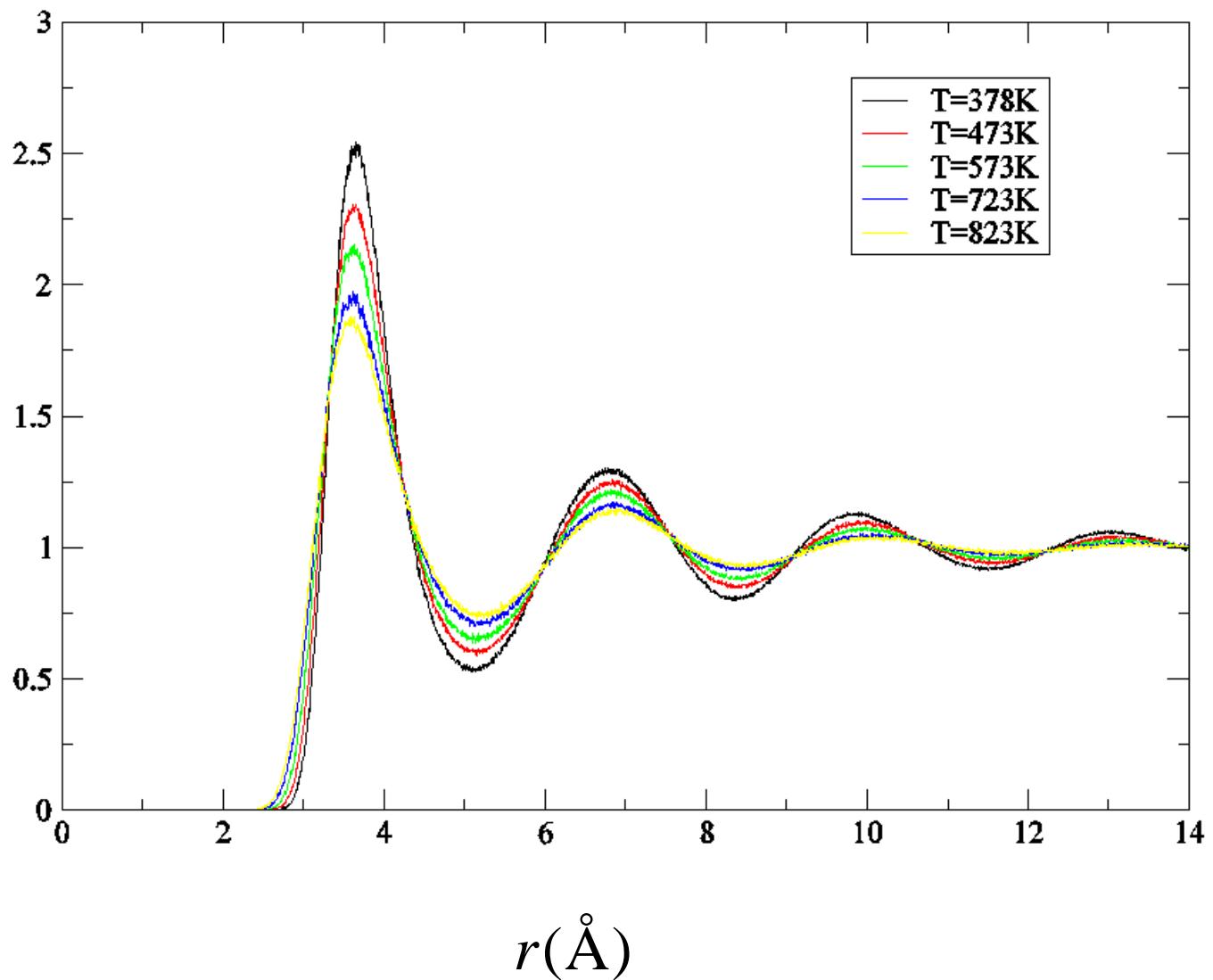
圖十五、鎵的粒子徑向分佈函數

$g(r)$



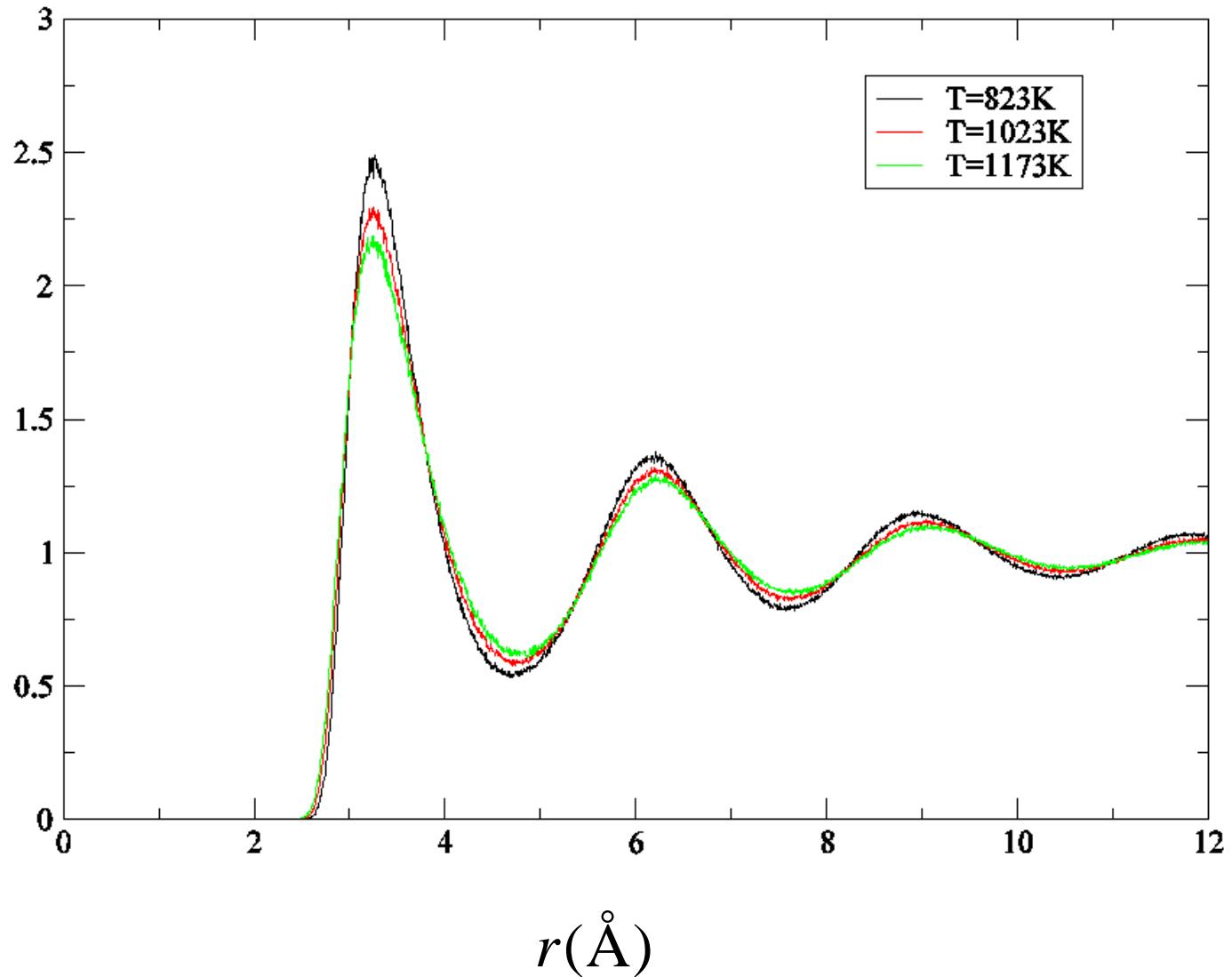
圖十六、鋰的粒子徑向分佈函數

$g(r)$



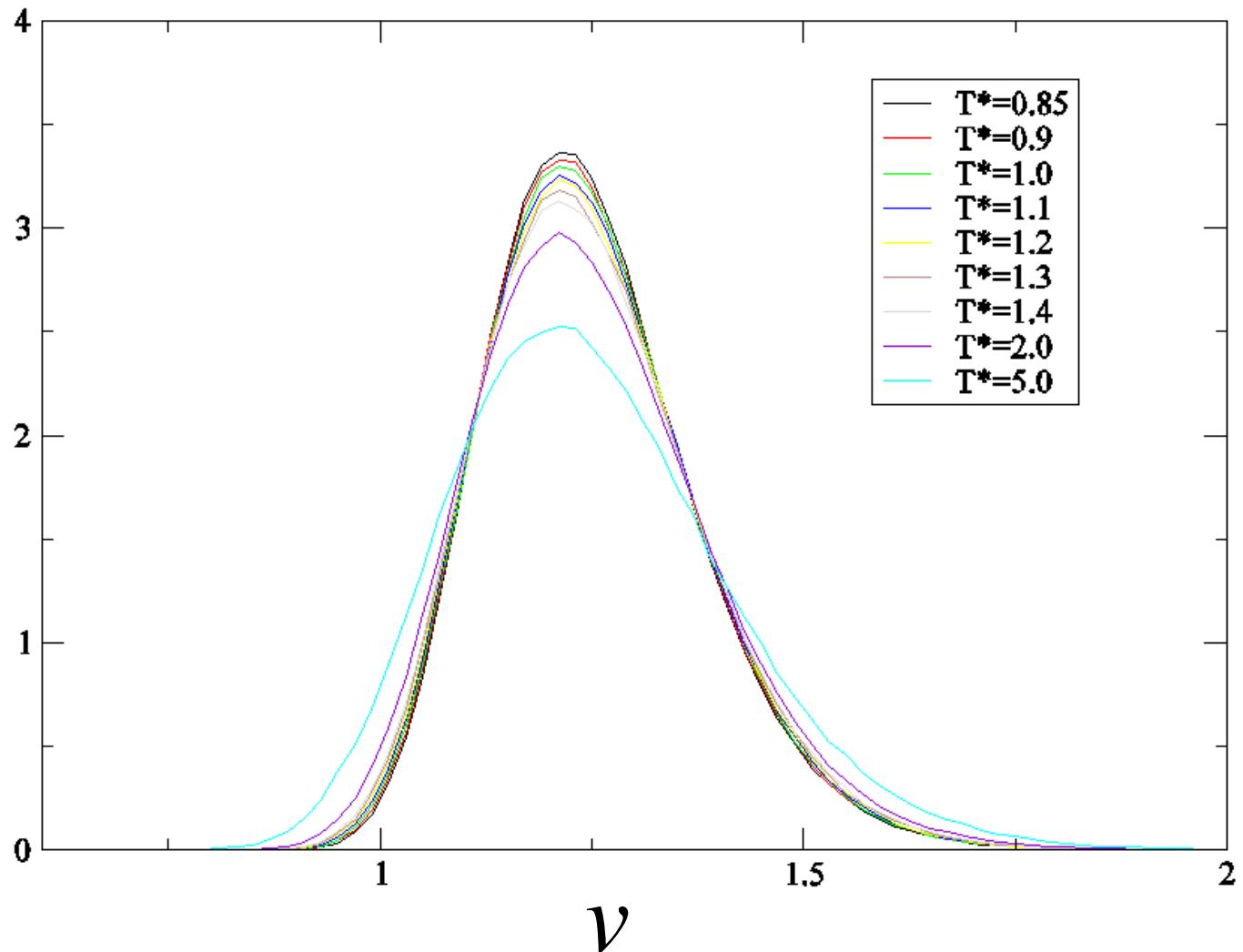
圖十七、鈉的粒子徑向分佈函數

$g(r)$



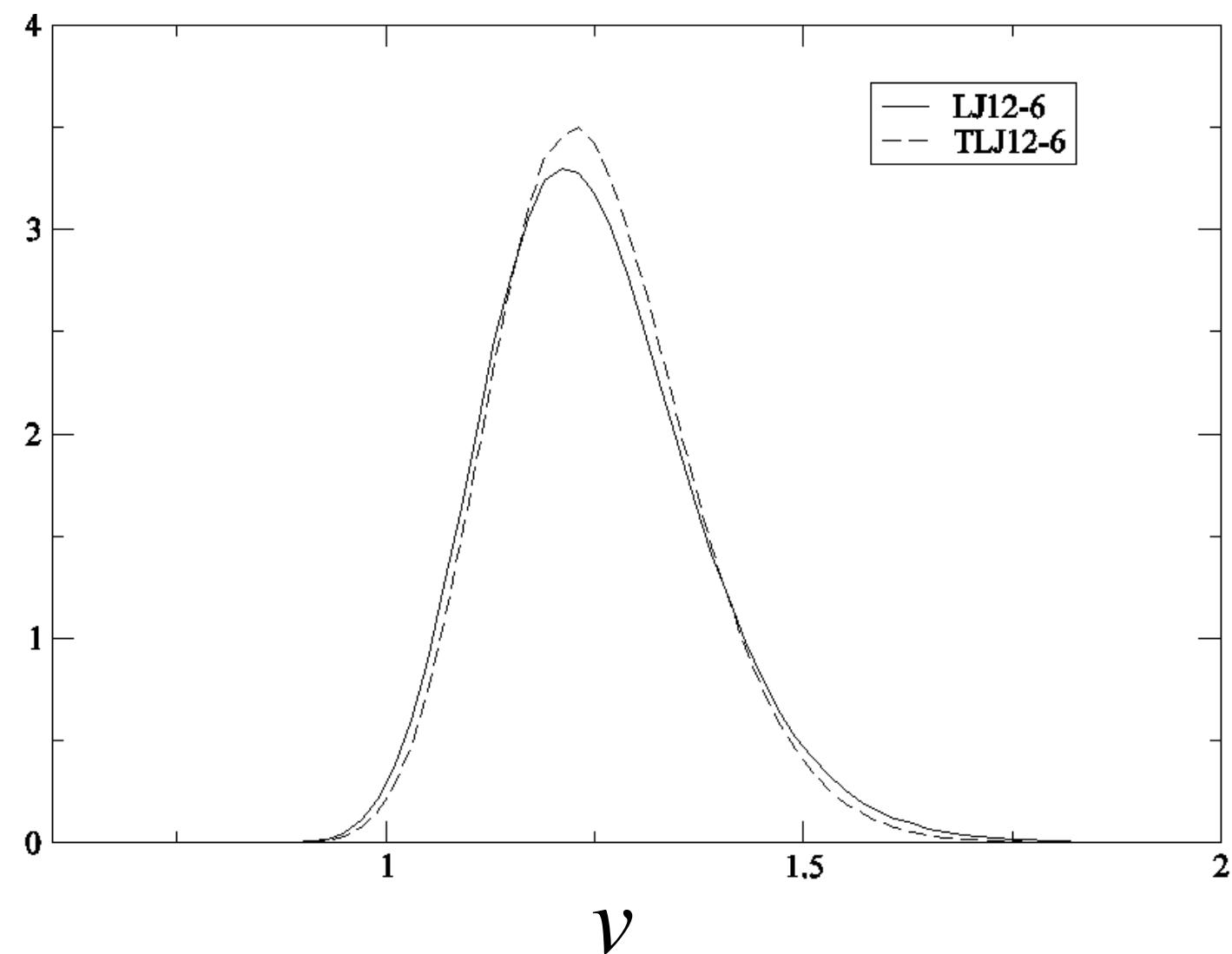
圖十八、鉛的粒子徑向分佈函數

$p(v)$



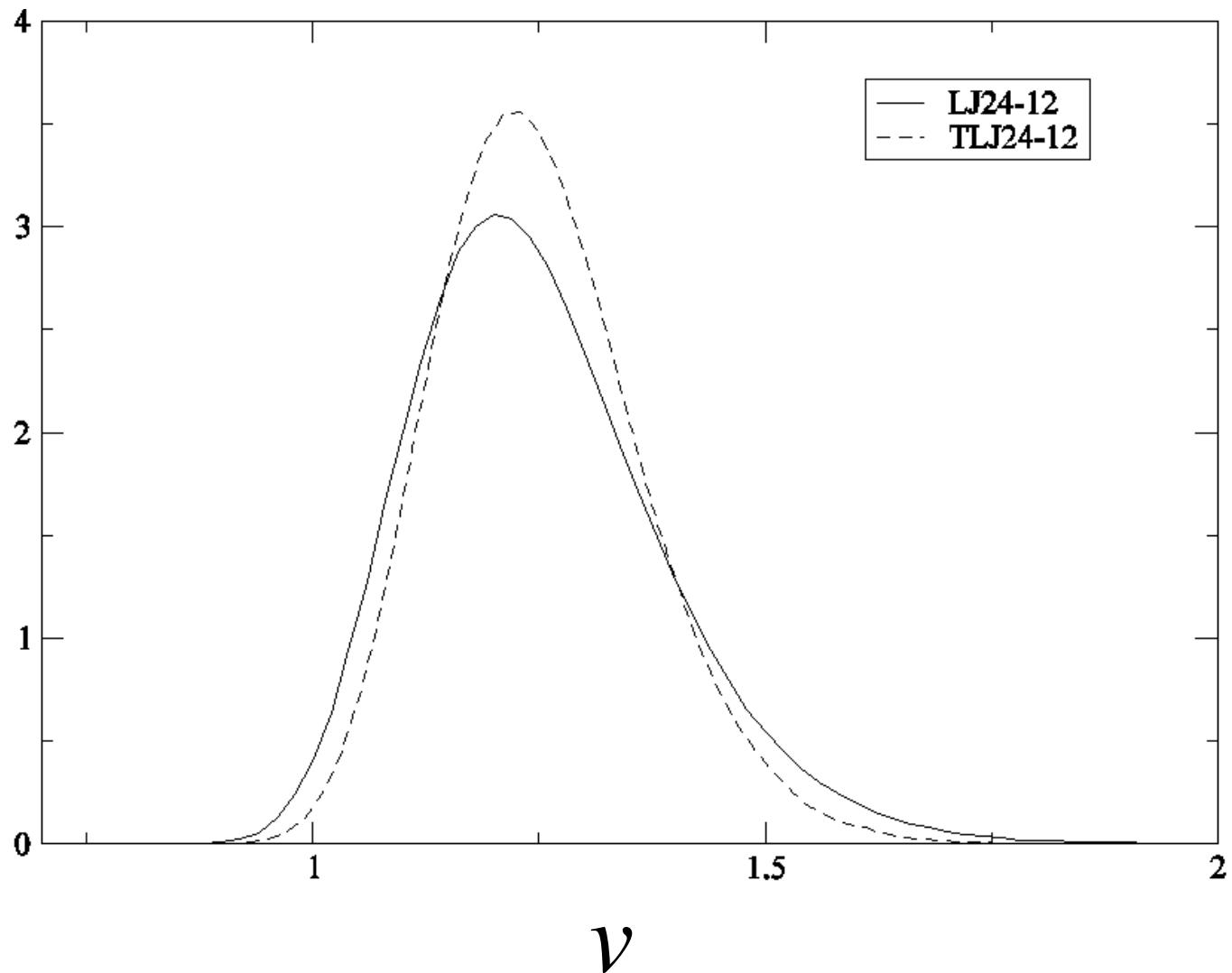
圖十九、LJ12-6 fluid的Voronoi
polyhedron體積分佈函數，
 $\rho^*=0.8$

$p(v)$



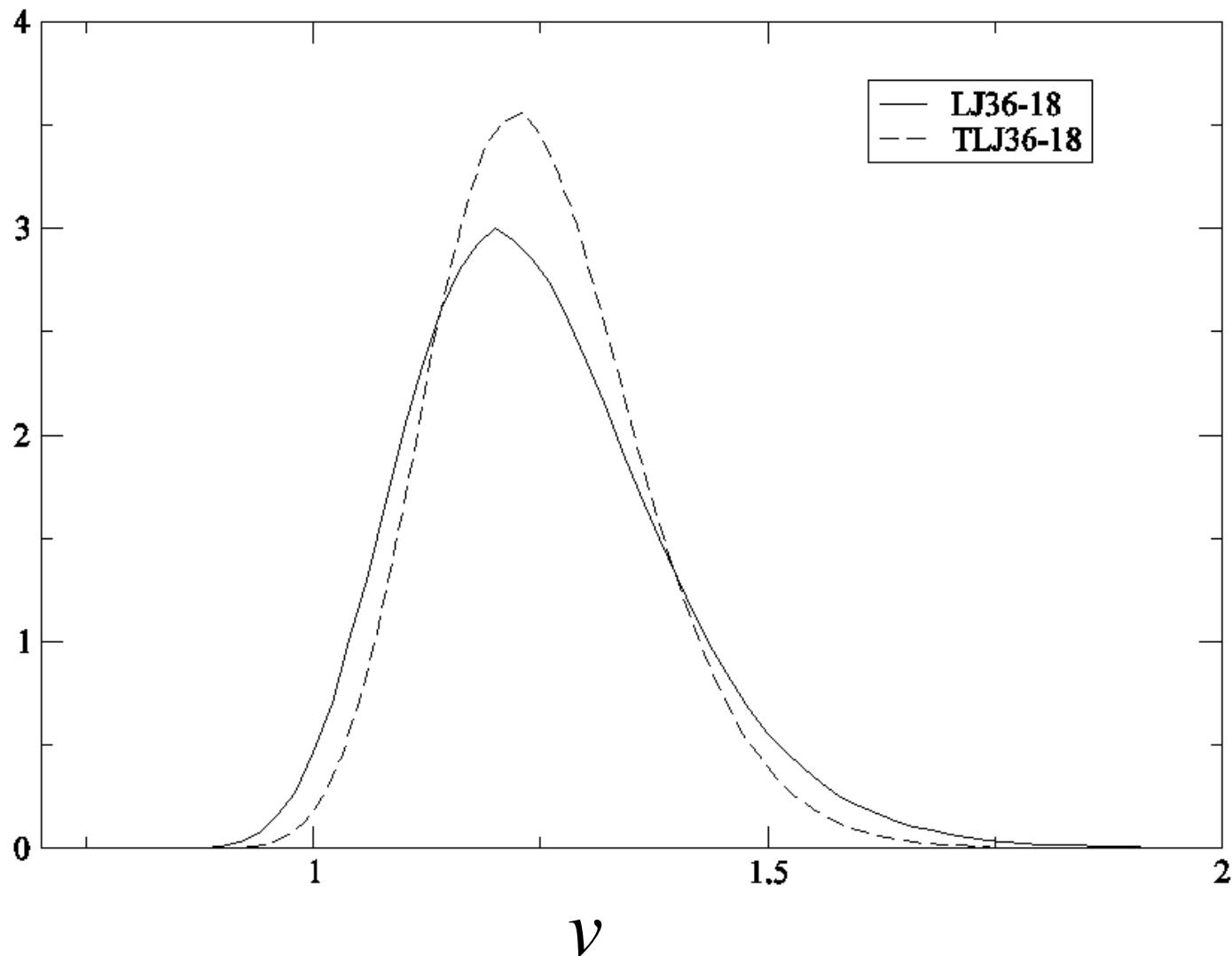
圖二十、LJ12-6 fluid和TLJ12-6 fluid的
Voronoi polyhedron體積分佈函
數， $\rho^*=0.8$ ， $T^*=1.0$

$p(v)$



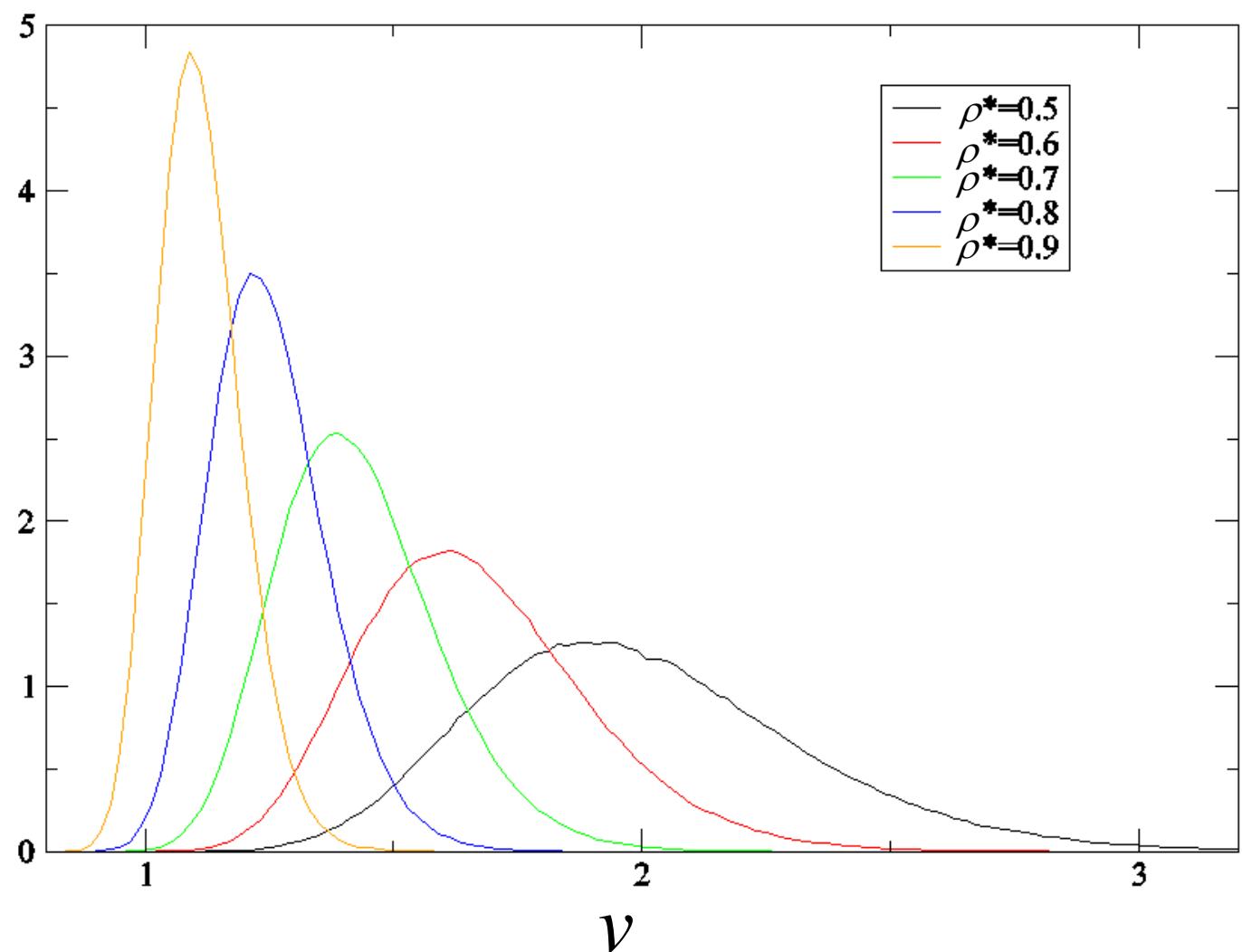
圖二十一、LJ24-12 fluid和TLJ24-12 fluid 的
Voronoi polyhedron體積分佈函
數 $\rho^*=0.8$ ， $T^*=1.0$

$p(v)$



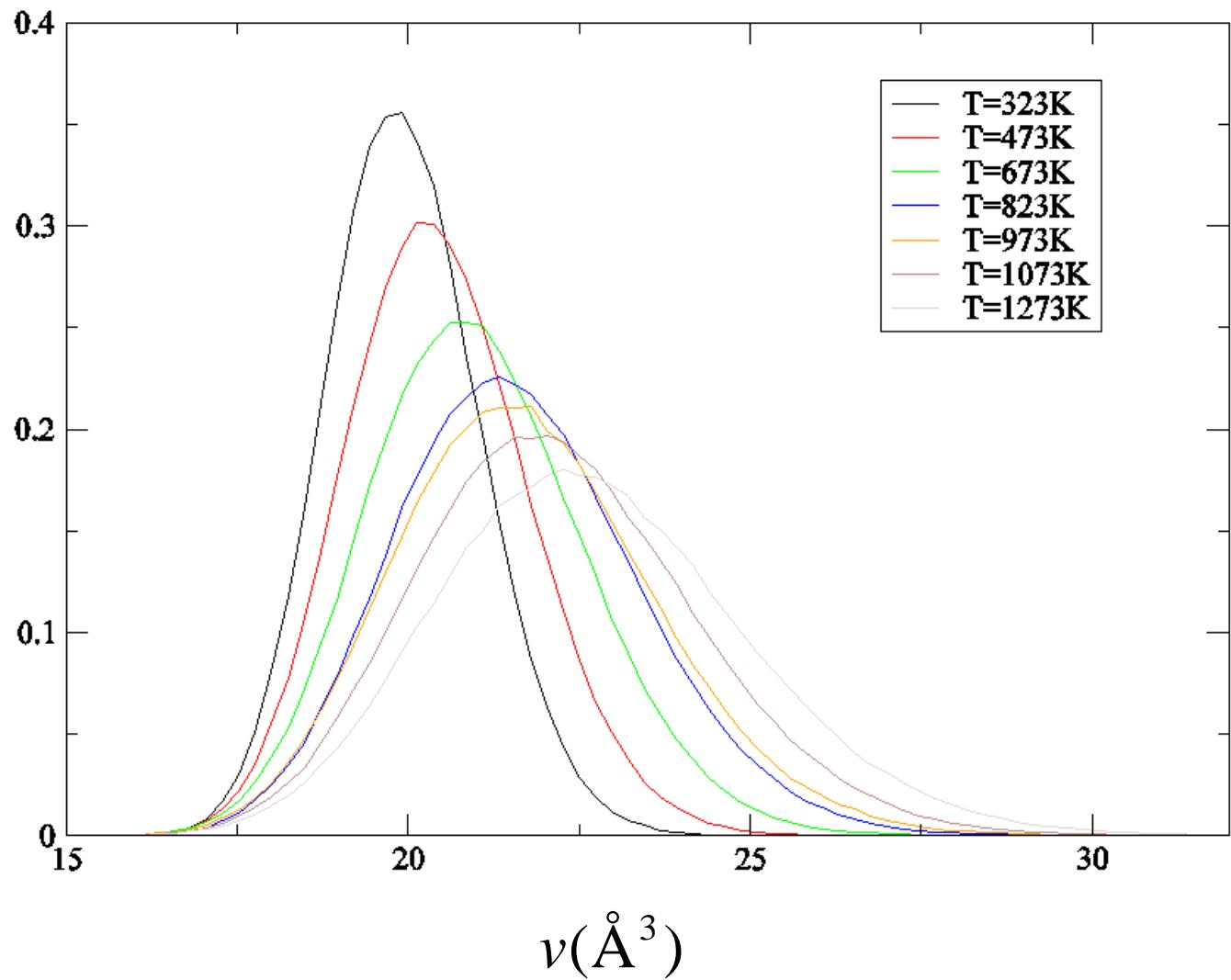
圖二十二、LJ36-18 fluid和TLJ36-18 fluid的
Voronoi polyhedron體積分佈函
數， $\rho^*=0.8$ ， $T^*=1.0$

$p(v)$



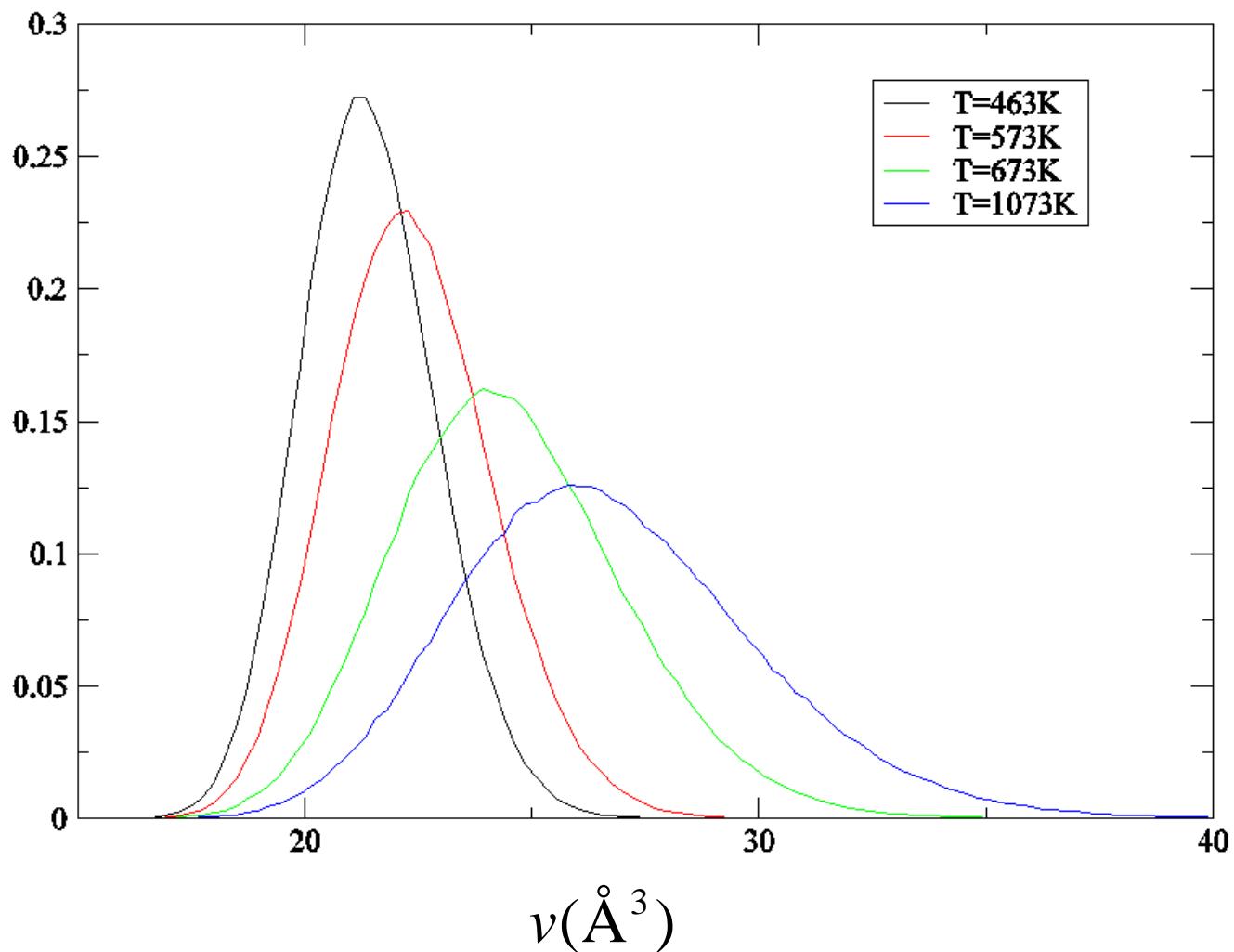
圖二十三、Hard Sphere fluid的Voronoi polyhedron體積分佈函數，
 $T^*=1.0$

$p(v)$



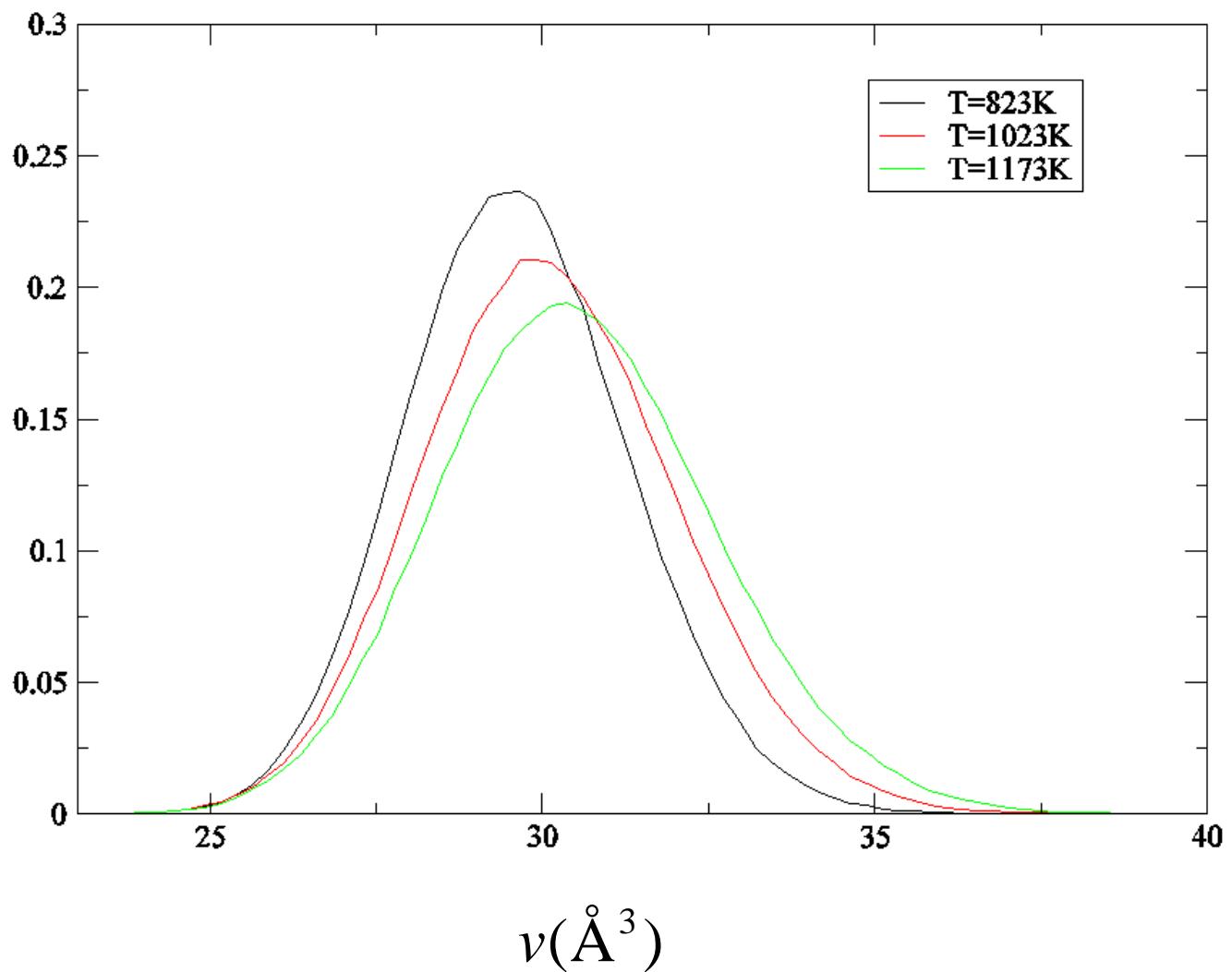
圖二十四、鎵的Voronoi polyhedron體積分佈函數

$p(v)$



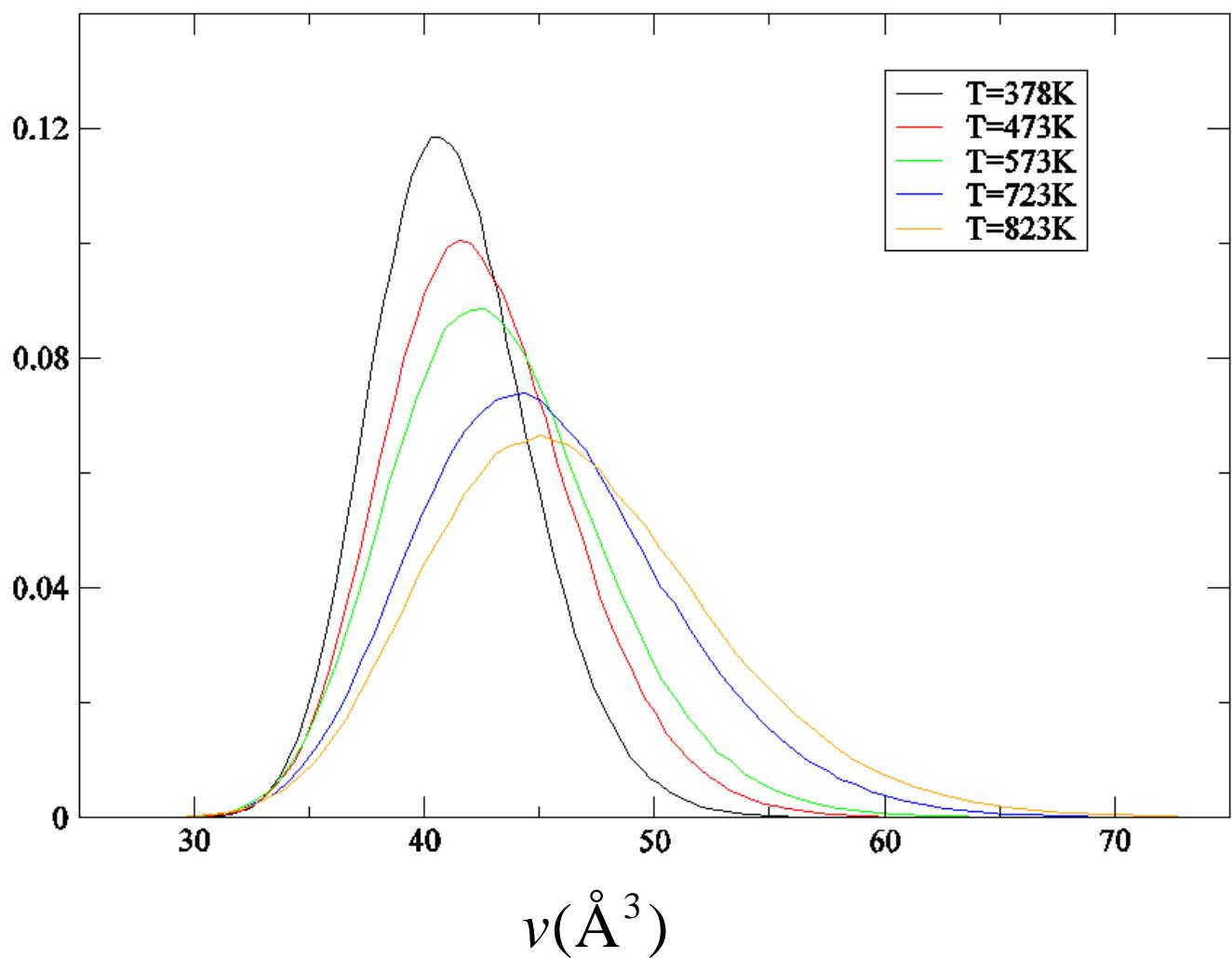
圖二十五、鋰的Voronoi polyhedron體積分佈函數

$p(v)$



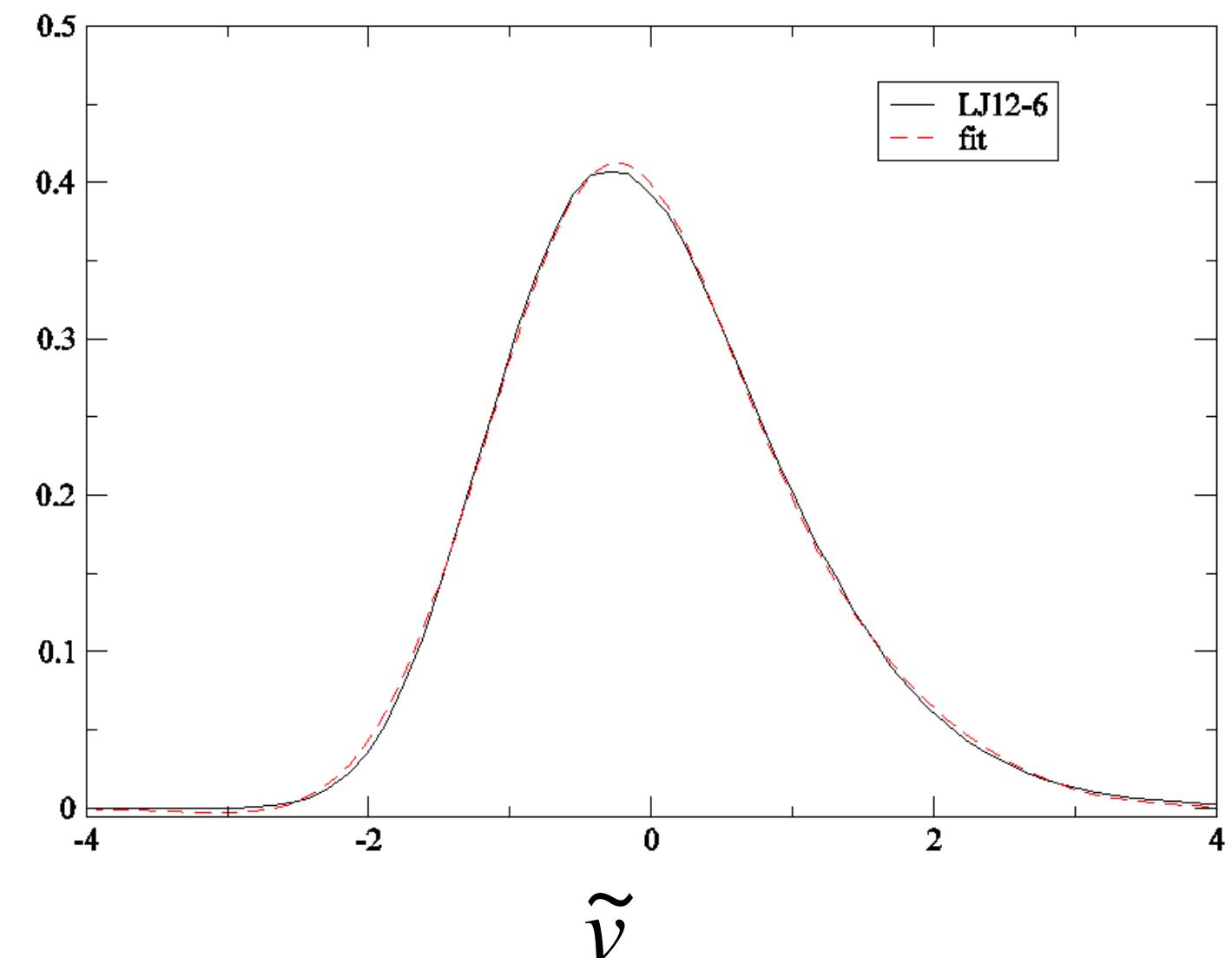
圖二十六、鉛的Voronoi polyhedron體積分佈函數

$p(v)$



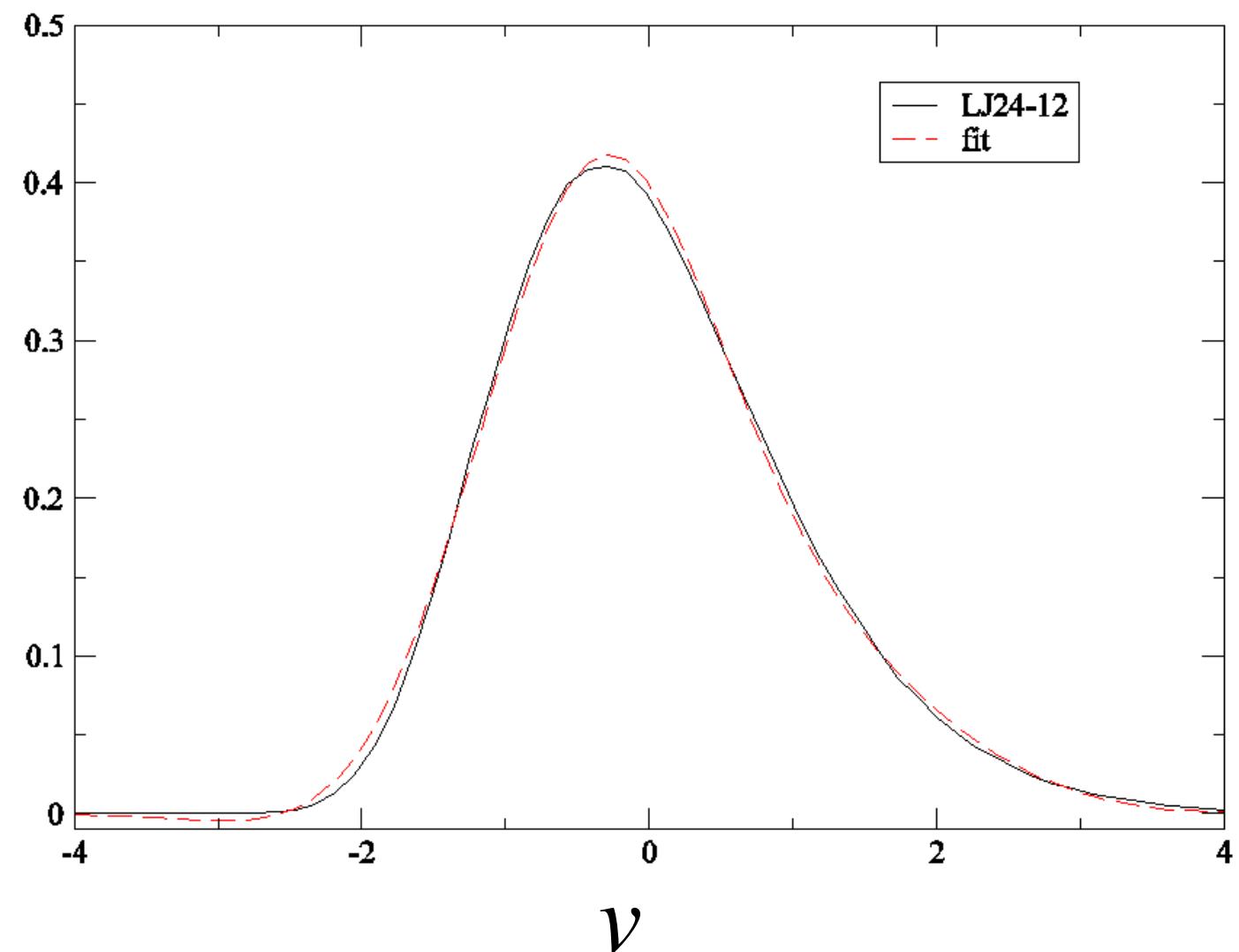
圖二十七、鈉的Voronoi polyhedron體積
分佈函數

$\tilde{p}(\tilde{v})$



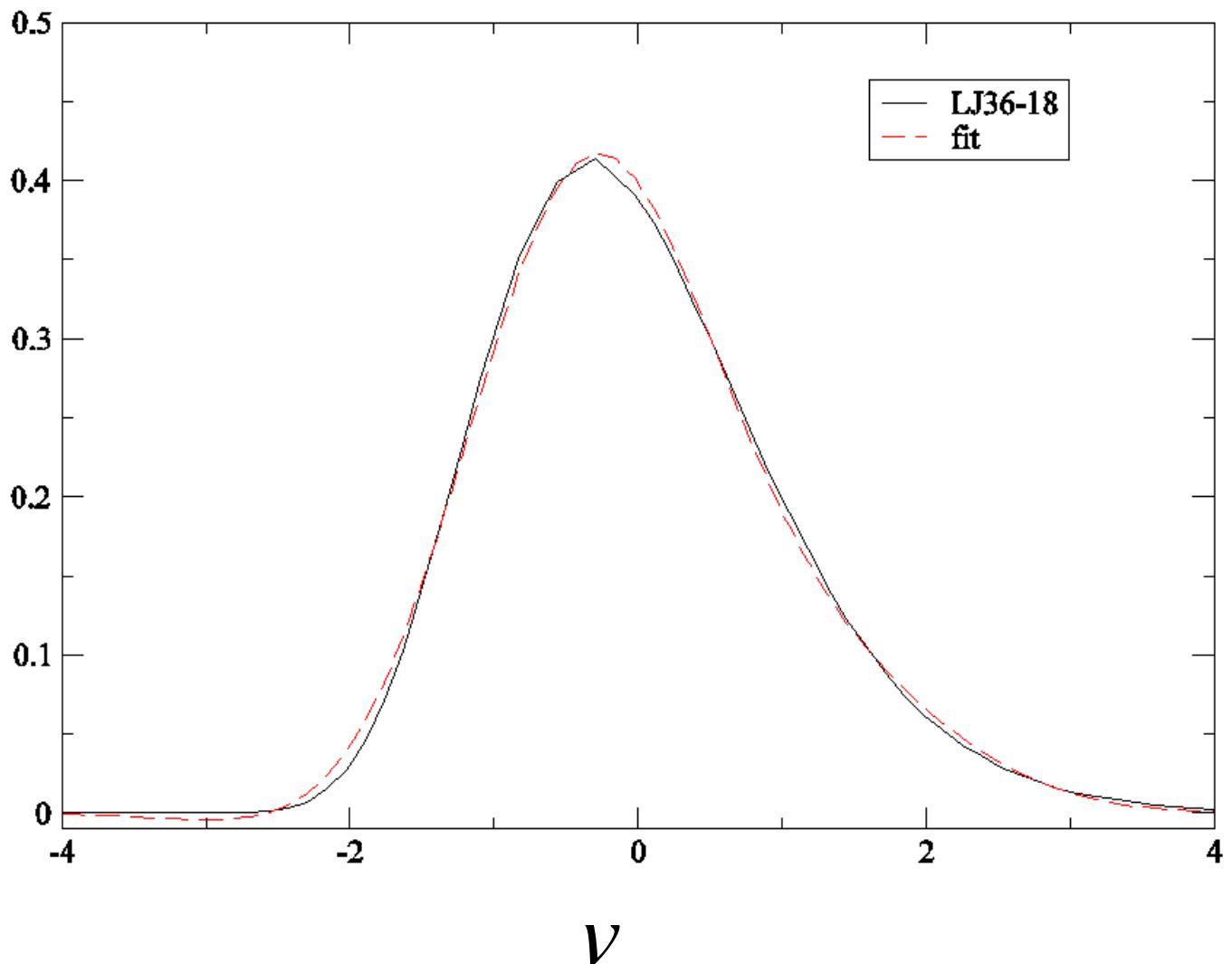
圖二十八、LJ12-6 fluid的rescaling
Voronoi polyhedron體積分佈
 $T^*=0.85$, $\rho^*=0.8$

$\tilde{p}(\tilde{v})$



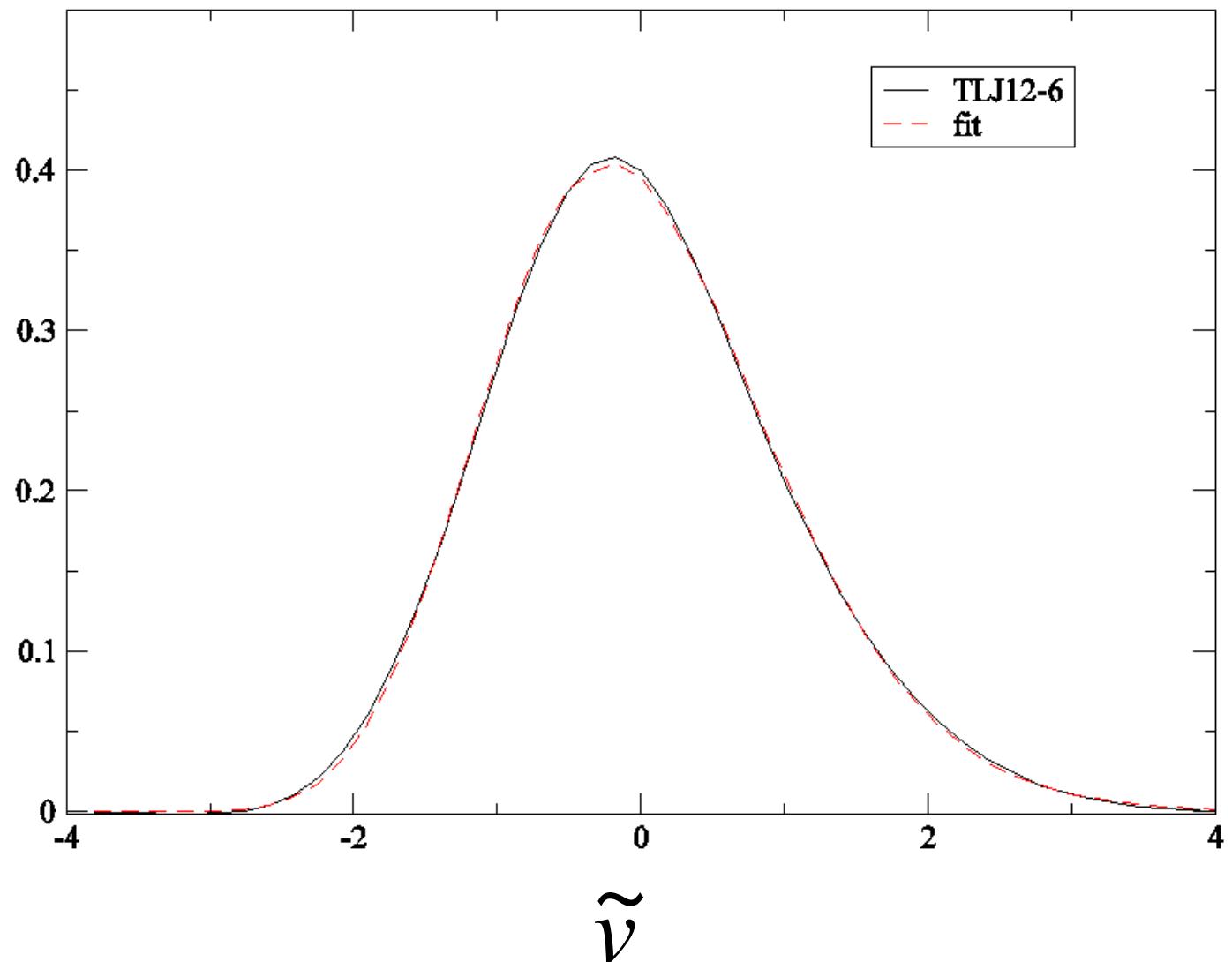
圖二十九、LJ24-12 fluid的rescaling
Voronoi polyhedron體積分佈
, $T^*=1.0$, $\rho^*=0.8$

$\tilde{p}(\tilde{v})$



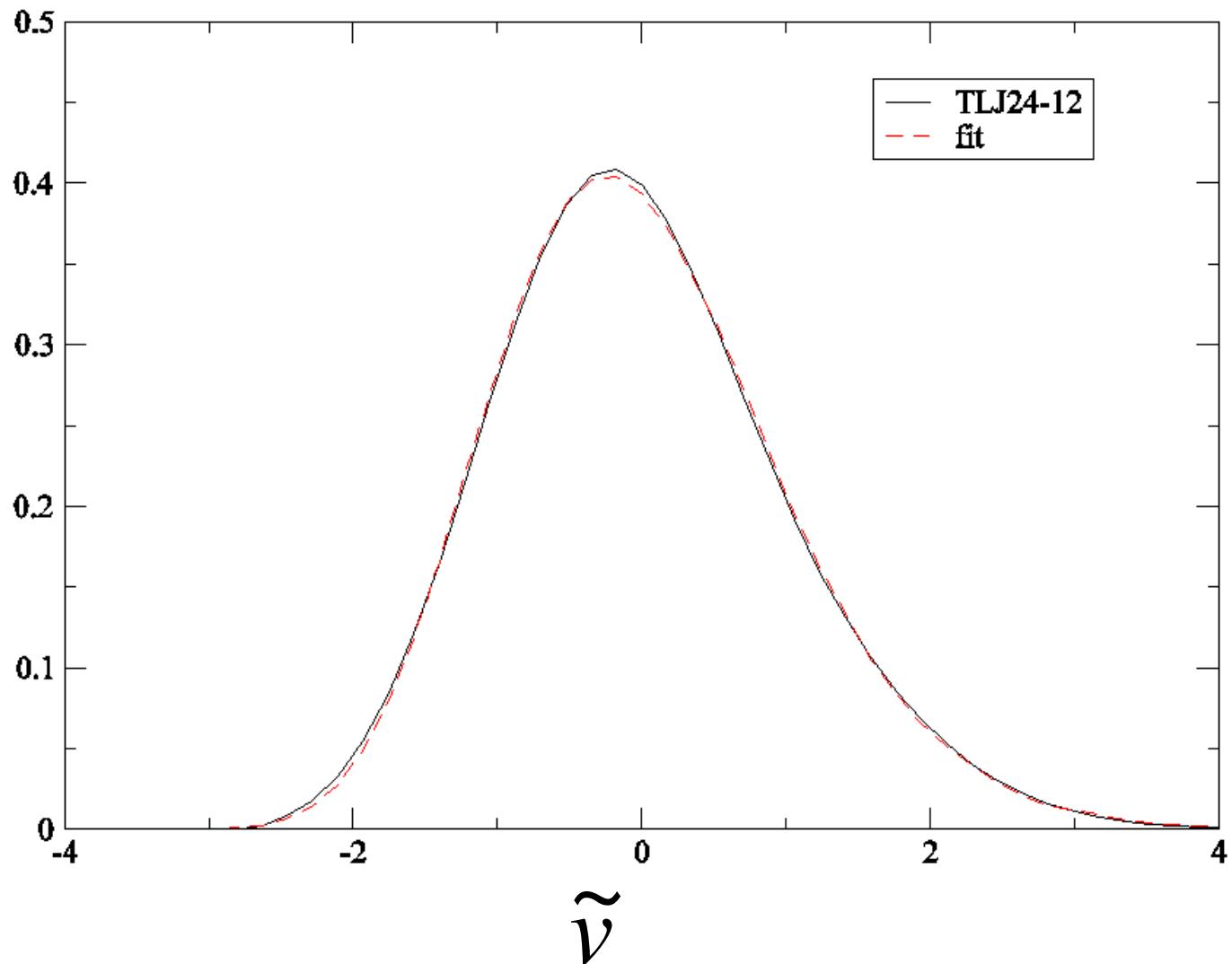
圖三十、LJ36-18 fluid的rescaling
Voronoi polyhedron體積分佈
, $T^*=1.0$, $\rho^*=0.8$

$\tilde{p}(\tilde{v})$



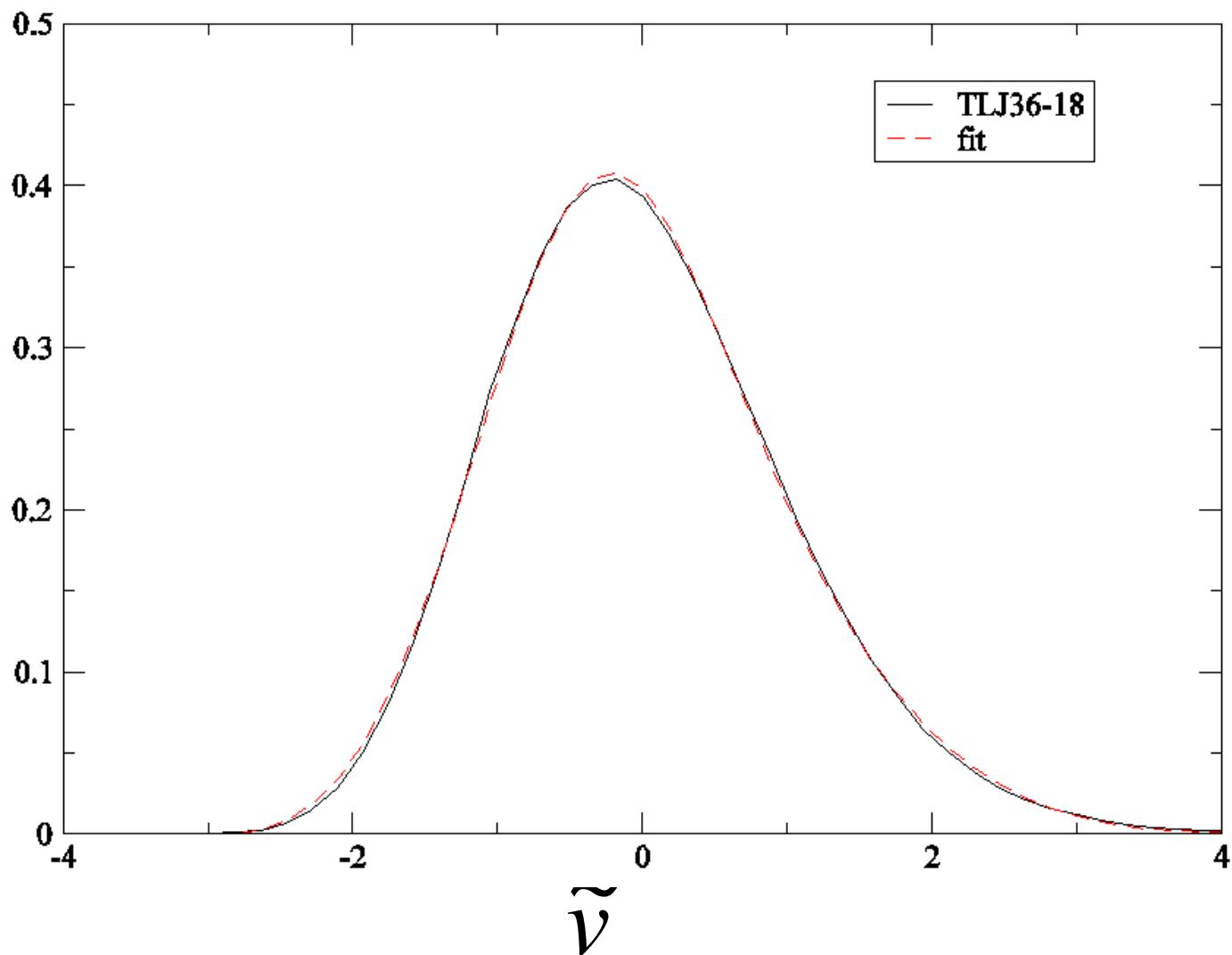
圖三十一、TLJ12-6 fluid的rescaling
Voronoi polyhedron體積分佈
 $T^*=1.0$, $\rho^*=0.8$

$\tilde{p}(\tilde{v})$



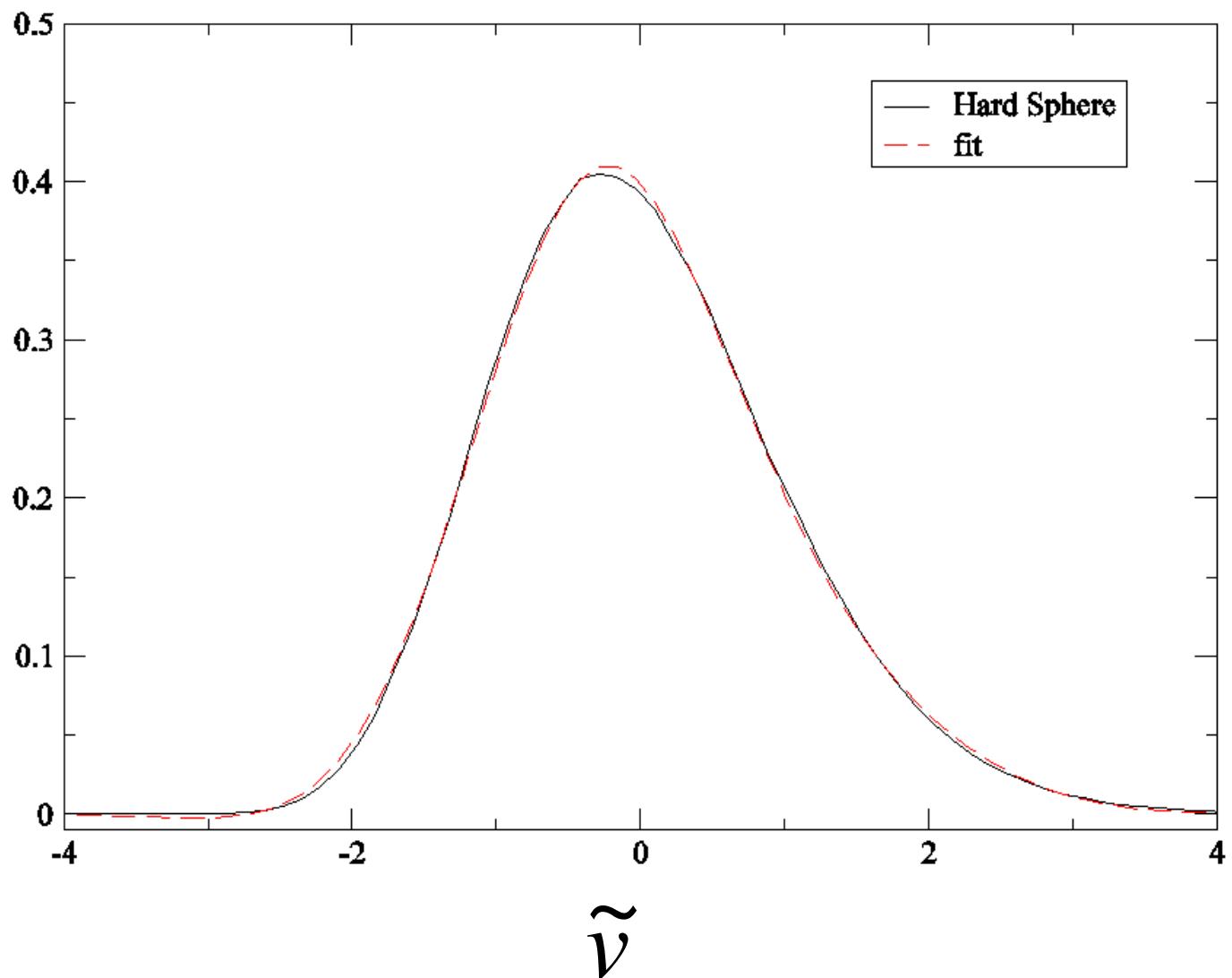
圖三十二、TLJ24-12 fluid的rescaling
Voronoi polyhedron體積分佈
, $T^*=1.0$, $\rho^*=0.8$

$\tilde{p}(\tilde{v})$



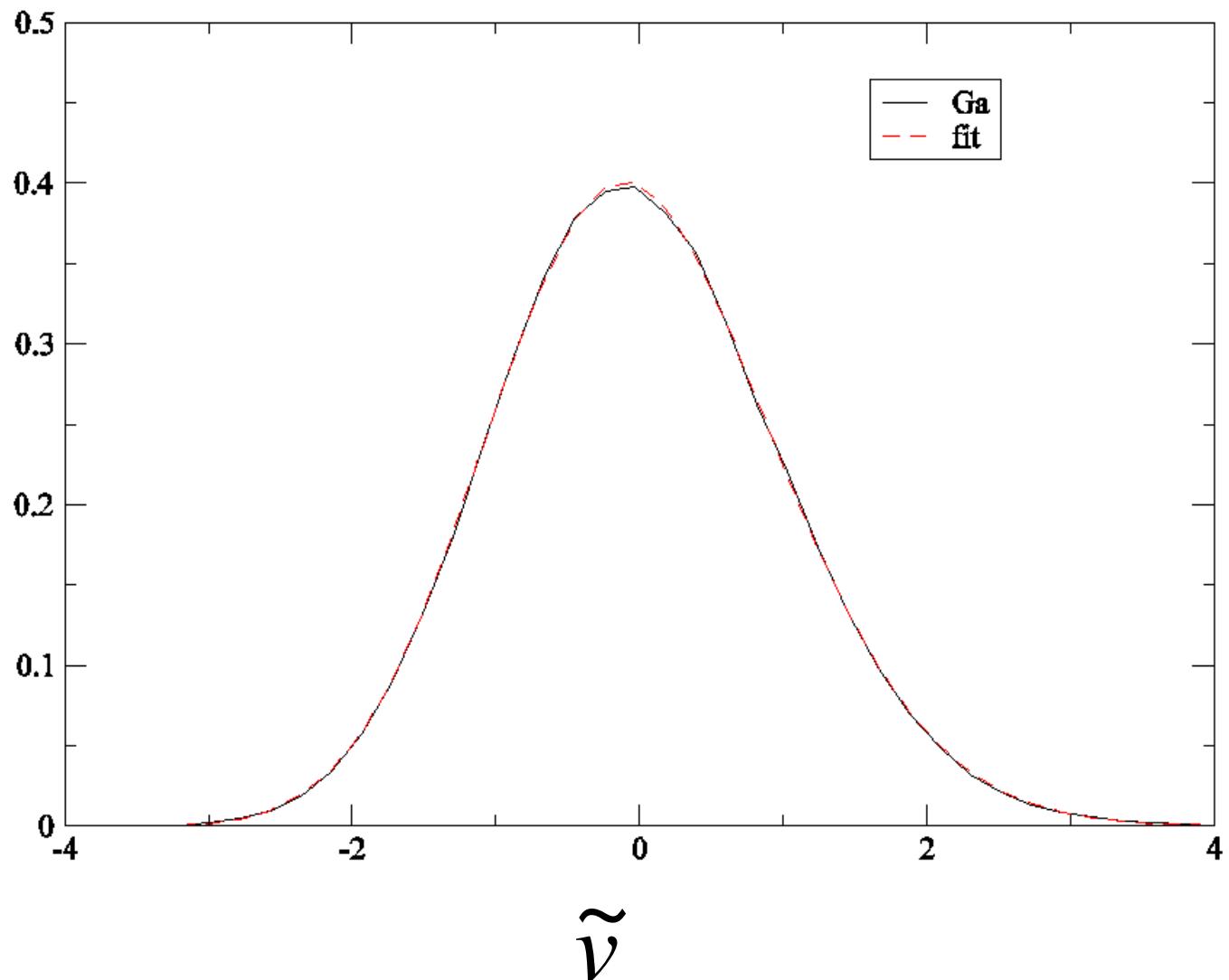
圖三十三、TLJ36-18 fluid的rescaling
Voronoi polyhedron體積分佈
, $T^*=1.0$, $\rho^*=0.8$

$\tilde{p}(\tilde{v})$



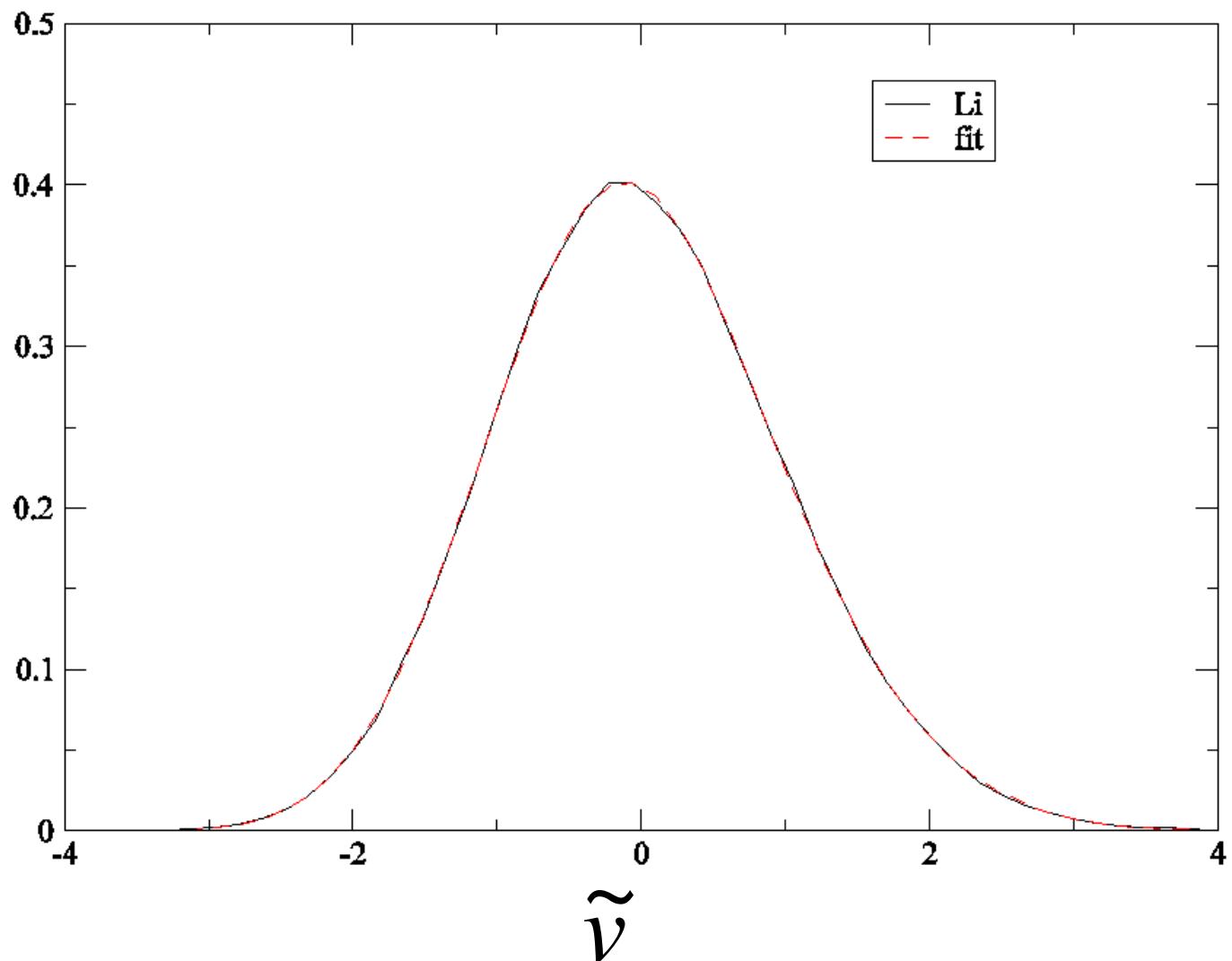
圖三十四、Hard Sphere fluid的rescaling Voronoi polyhedron體積分佈， $T^*=1.0$ ， $\rho^*=0.9$

$\tilde{p}(\tilde{v})$



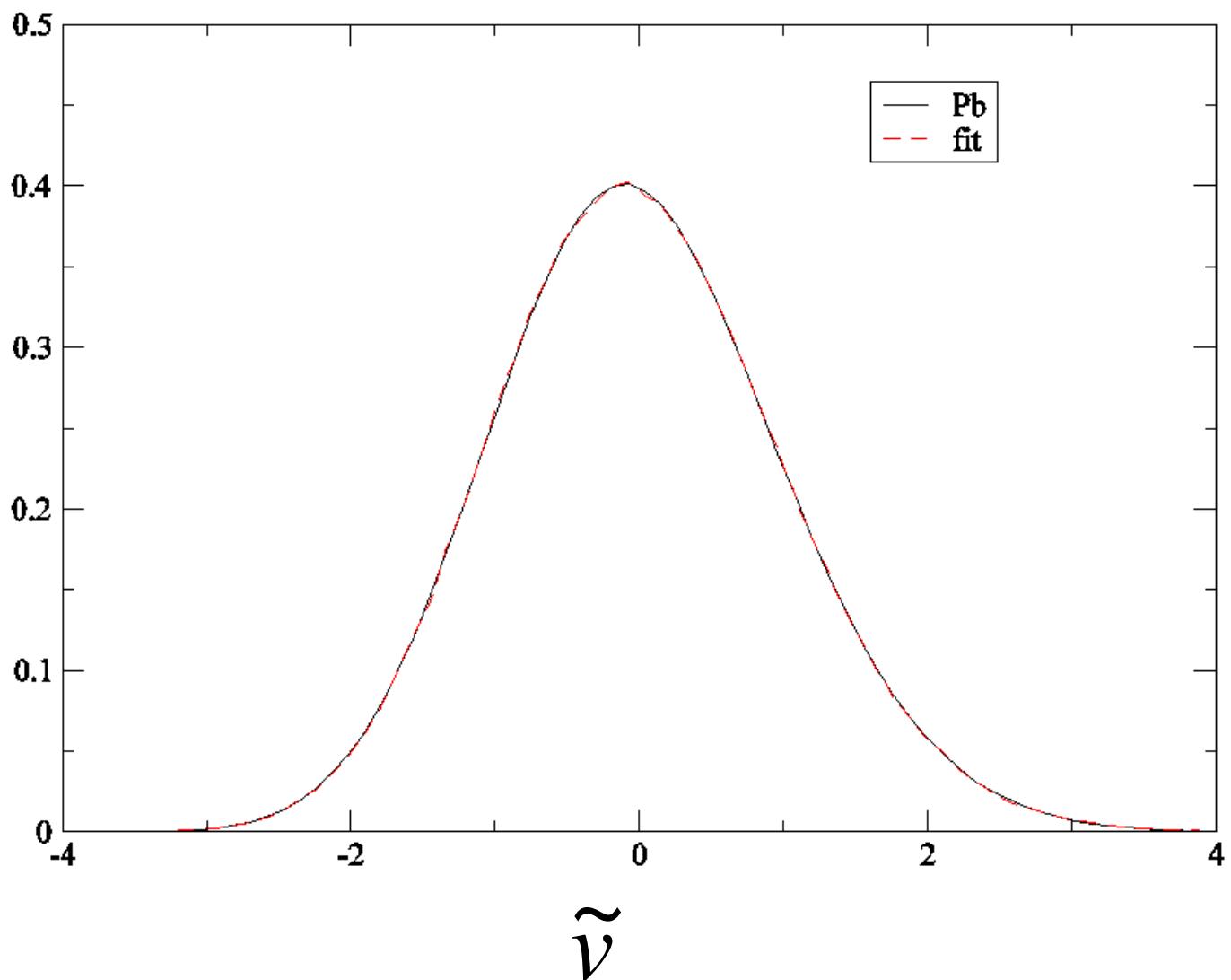
圖三十五、鎵的rescaling Voronoi polyhedron
體積分佈函數，T=473K

$\tilde{p}(\tilde{v})$



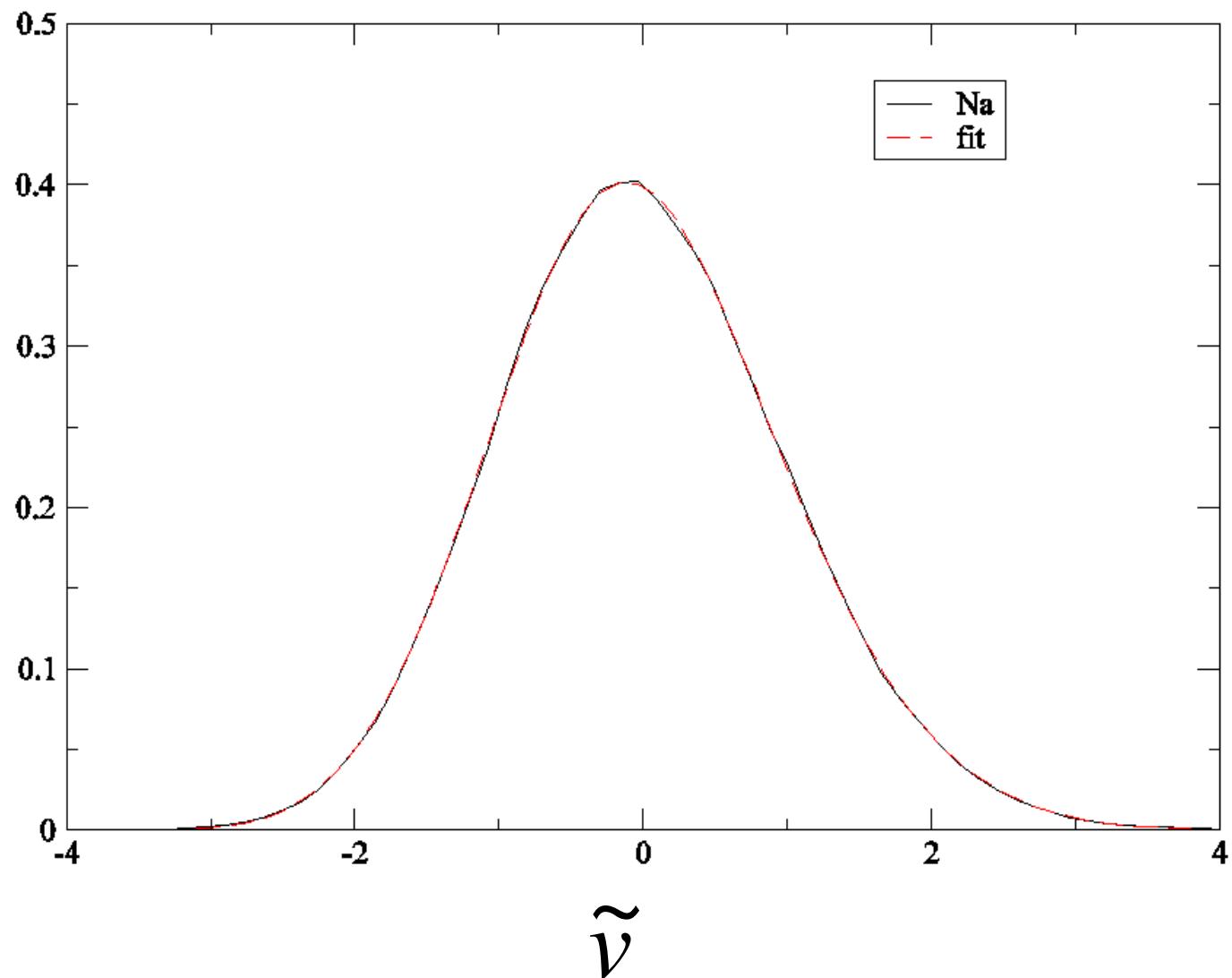
圖三十六、鋰的rescaling Voronoi polyhedron
體積分佈函數，T=463K

$\tilde{p}(\tilde{v})$



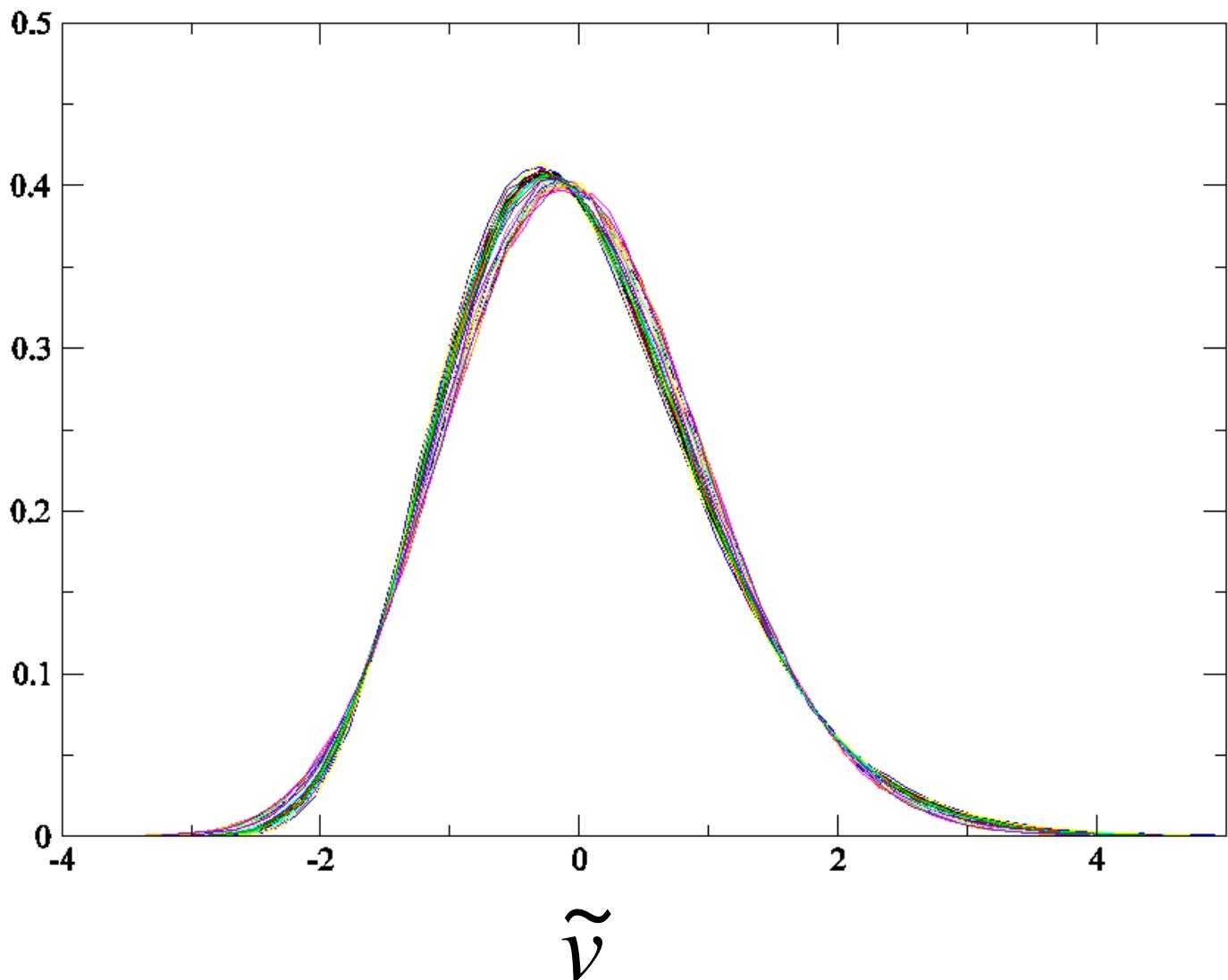
圖三十七、鉛的rescaling Voronoi polyhedron
體積分佈函數， $T=1173K$

$\tilde{p}(\tilde{v})$



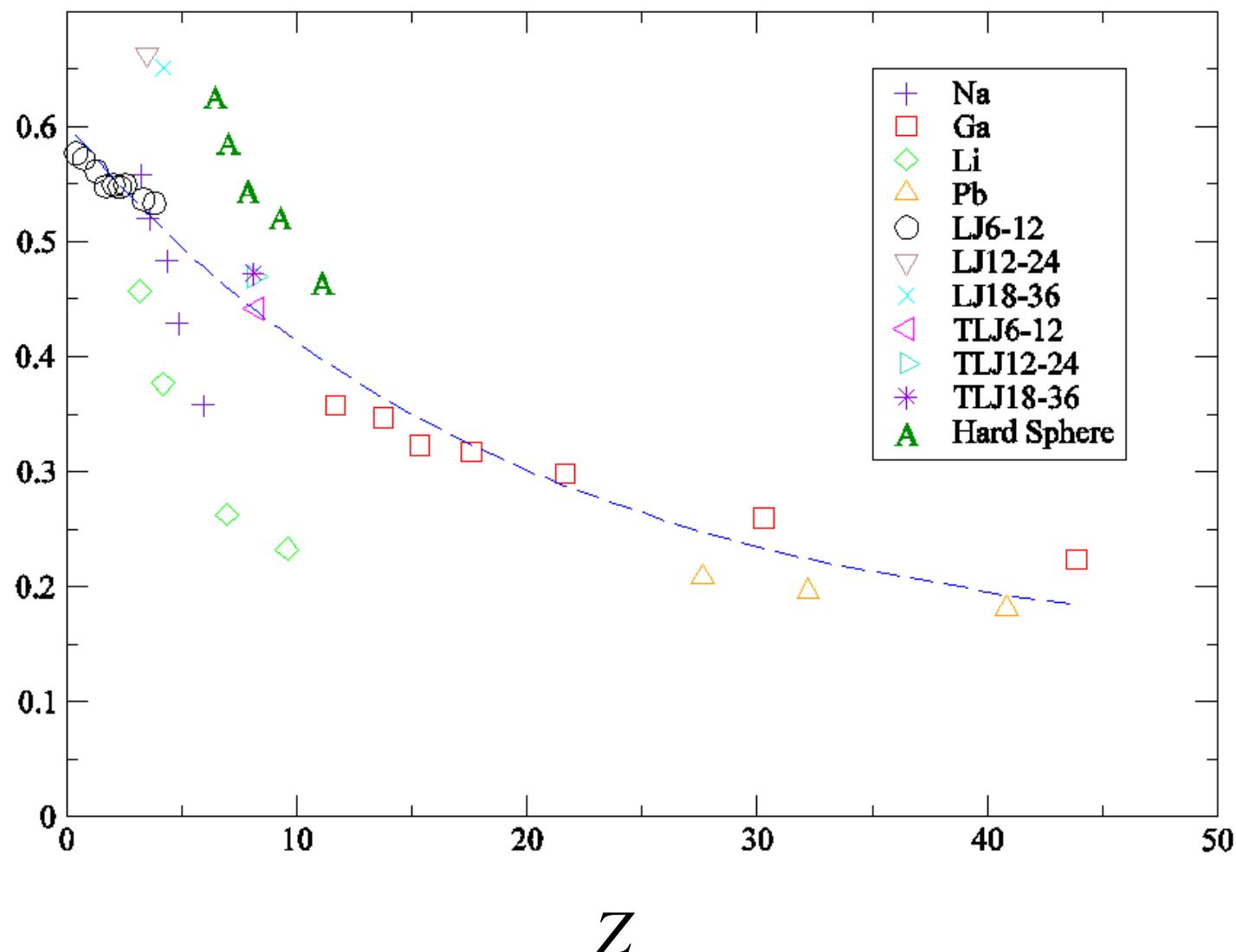
圖三十八、鈉的rescaling Voronoi polyhedron
體積分佈函數，T=723K

$\tilde{p}(\tilde{v})$

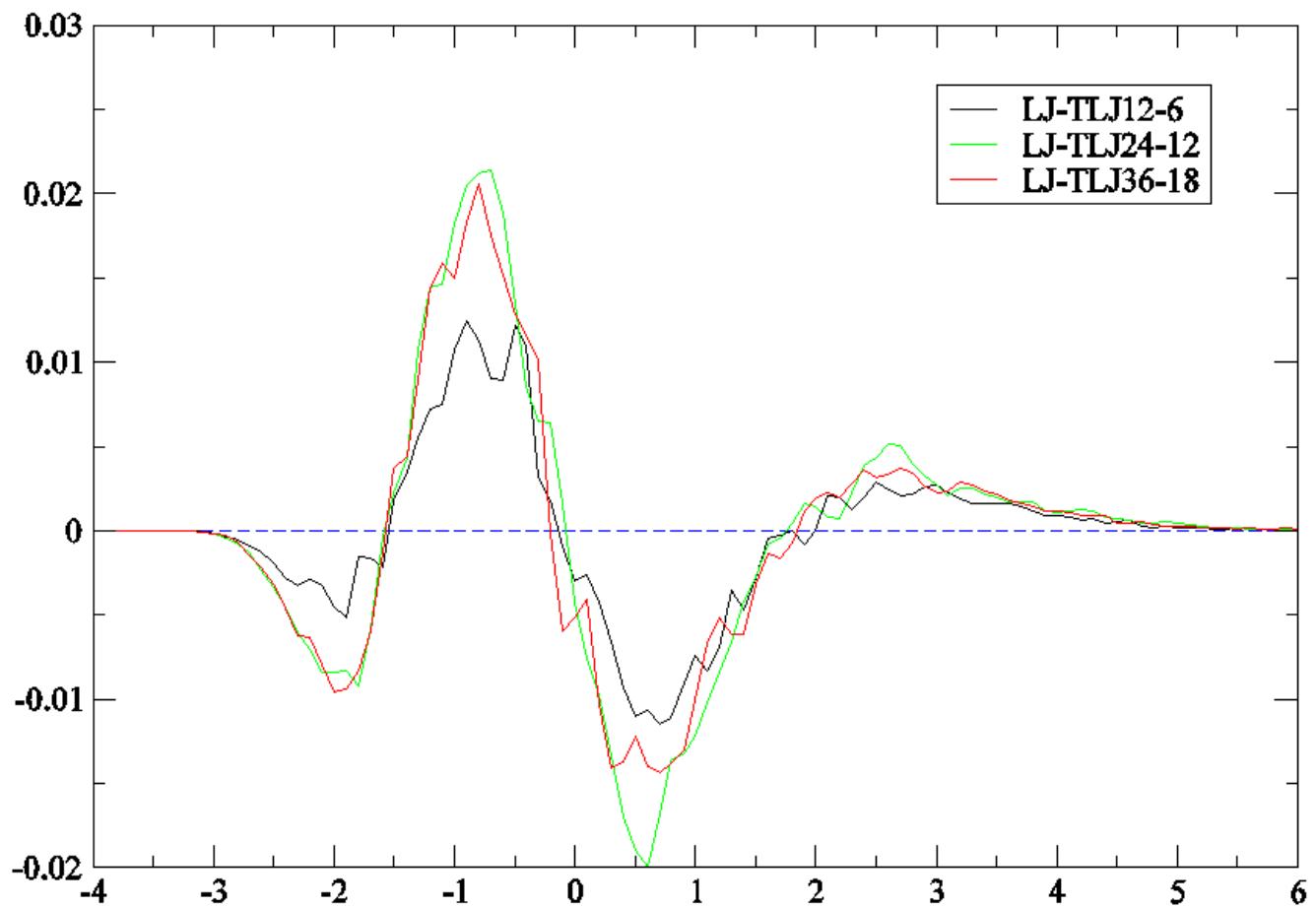


圖三十九、所有的液體的 rescaling Voronoi polyhedron 體積分佈

S

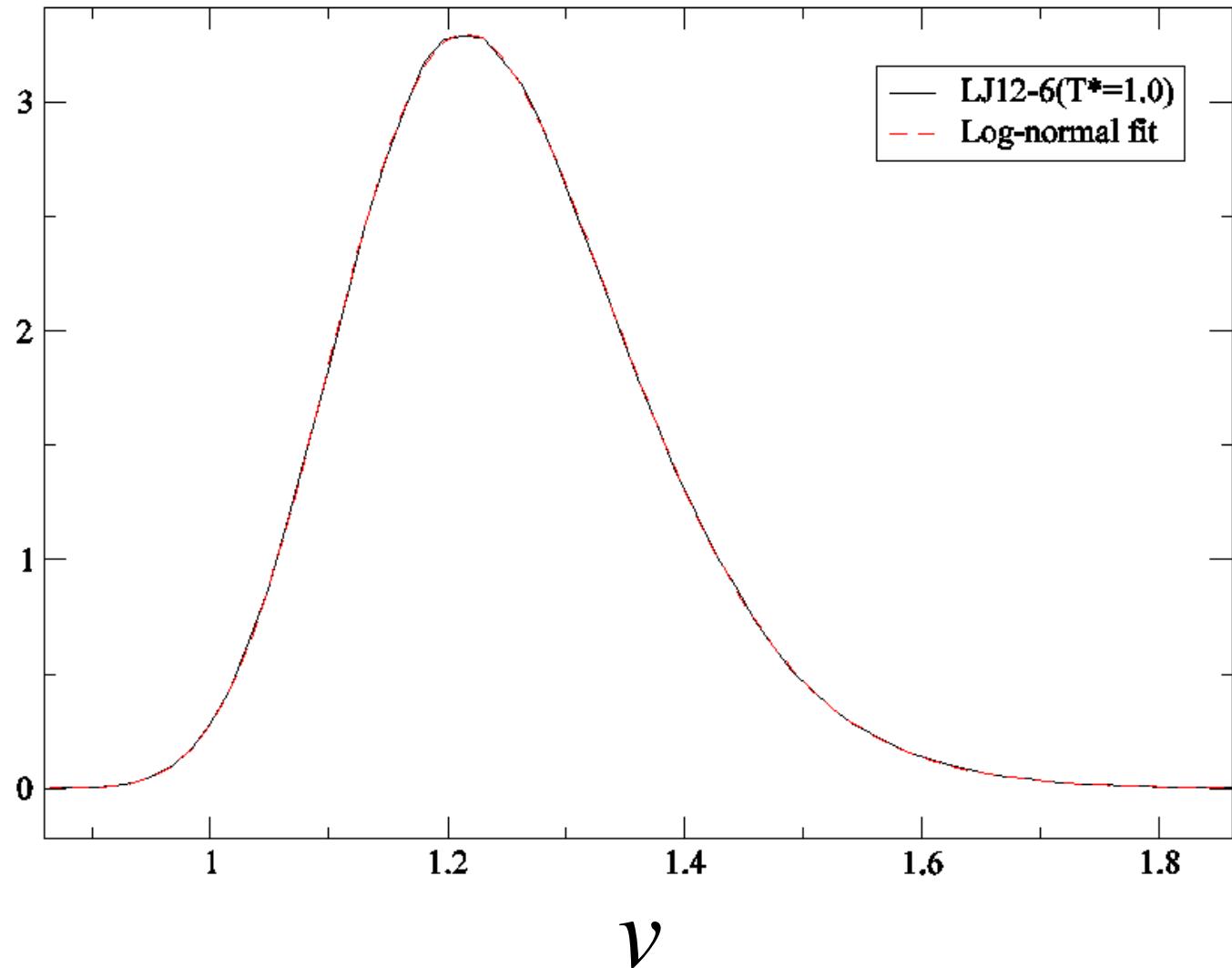


圖四十、Voronoi體積分佈的skewness與compression factor 關係圖



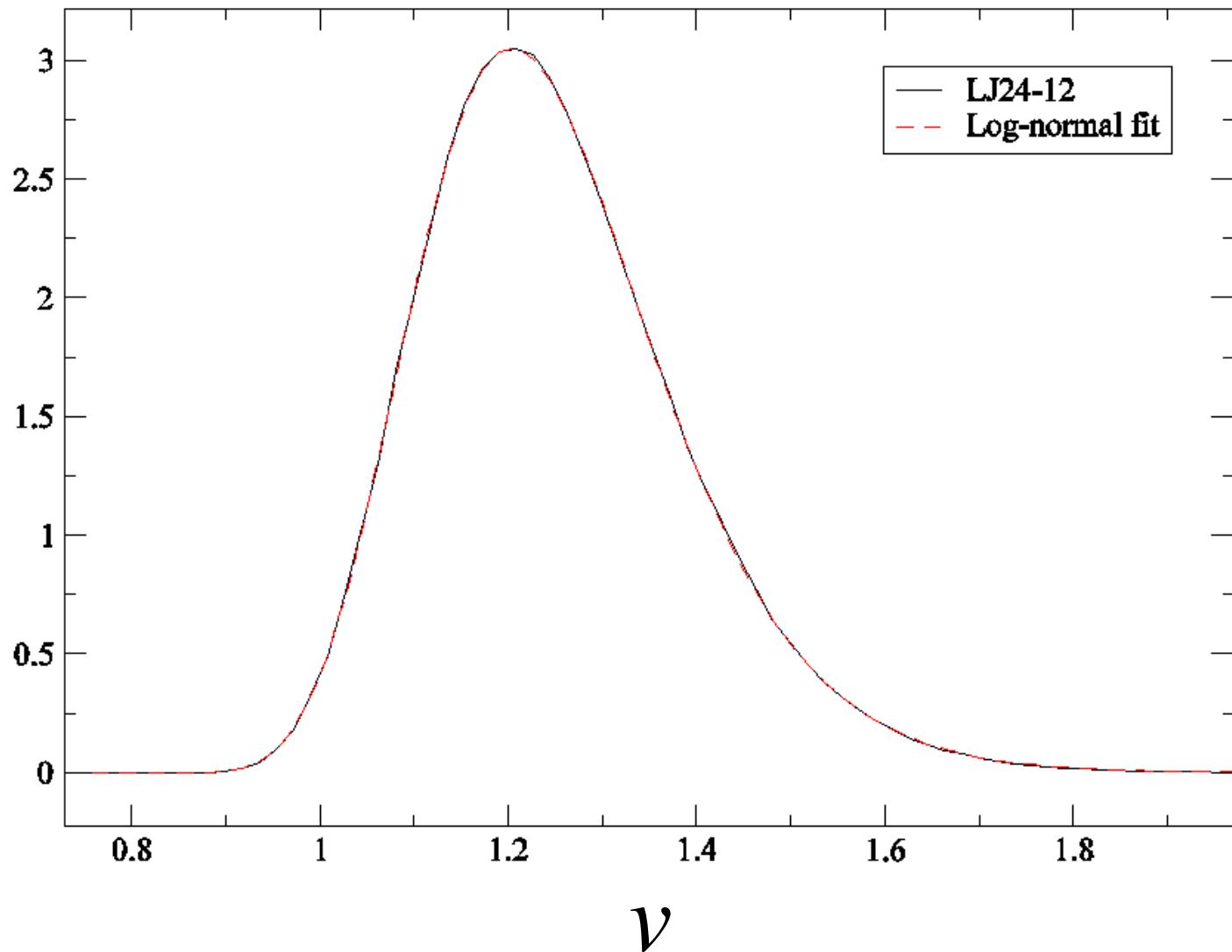
圖四十一、rescaling LJ_{2n-n} Voronoi 體積
分佈與rescaling TLJ_{2n-n}
Voronoi 體積分佈的相差

$p(v)$



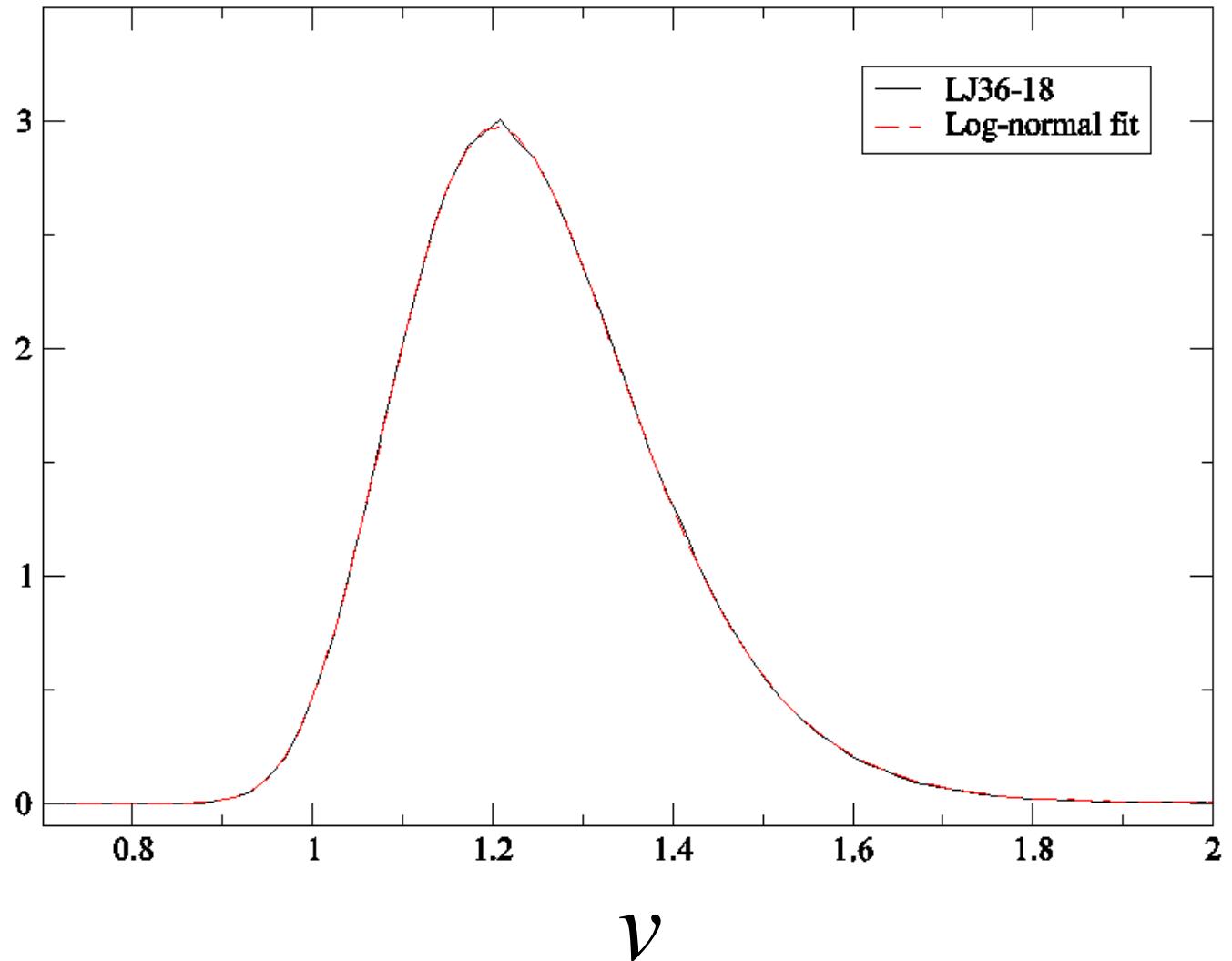
圖四十二、LJ12-6 fluid的 Voronoi 體積
分佈 & lognormal fitting

$p(v)$



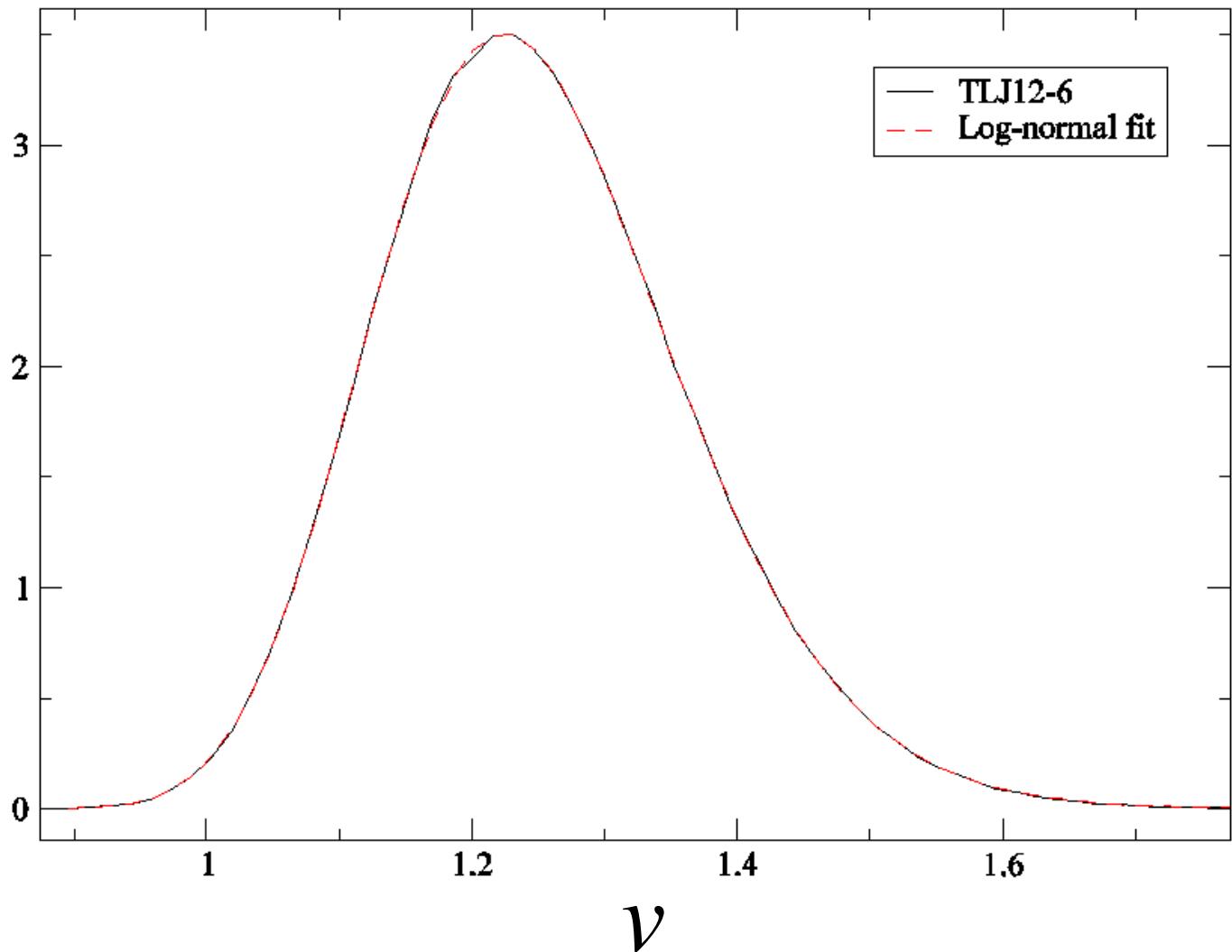
圖四十三、LJ24-12 fluid的 Voronoi 體積
分佈 & lognormal fitting

$p(v)$



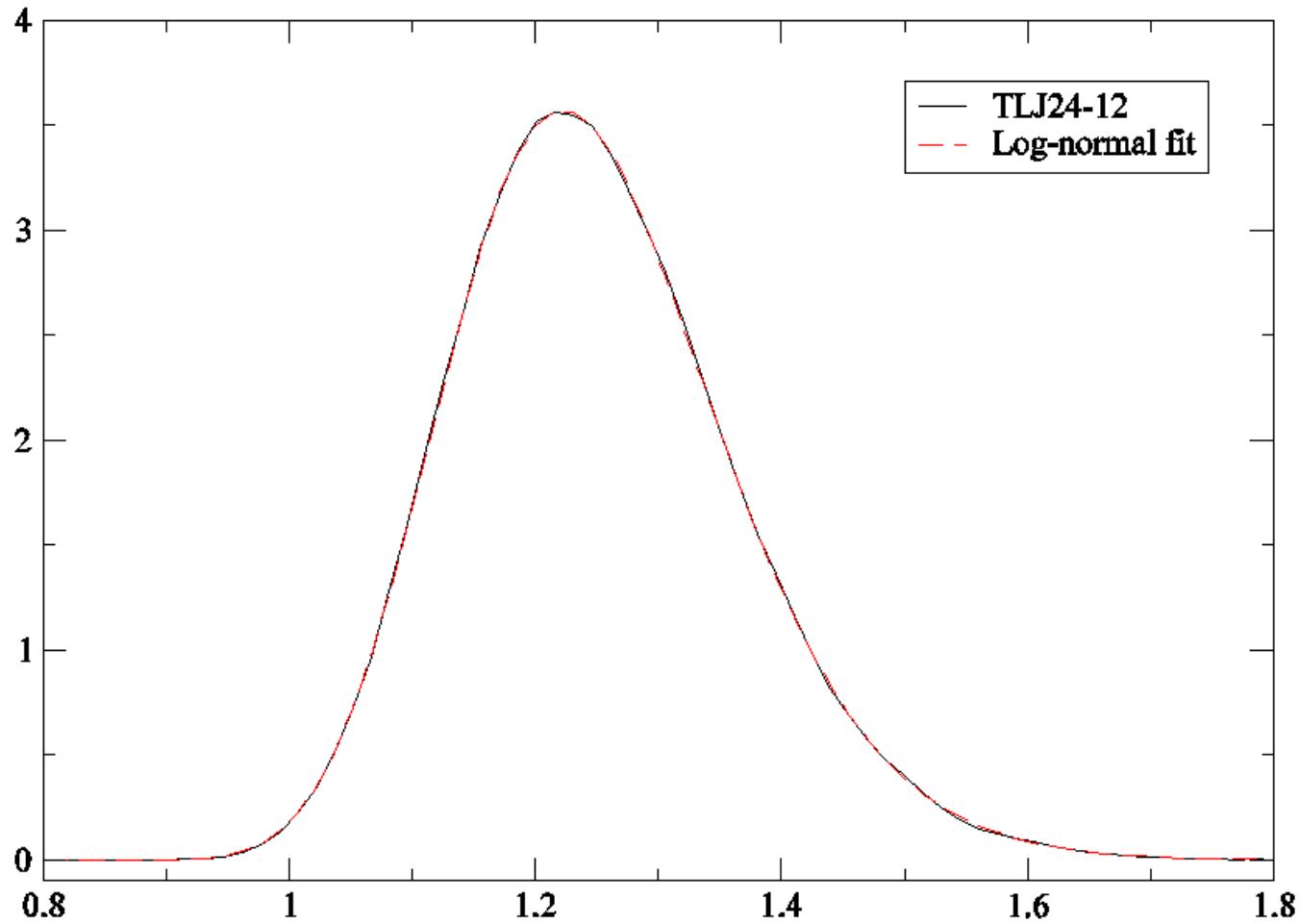
圖四十四、LJ36-18 fluid的 Voronoi 體積
分佈 & lognormal fitting

$p(v)$



圖四十五、TLJ12-6 fluid 的 Voronoi 體積分佈 & lognormal fitting

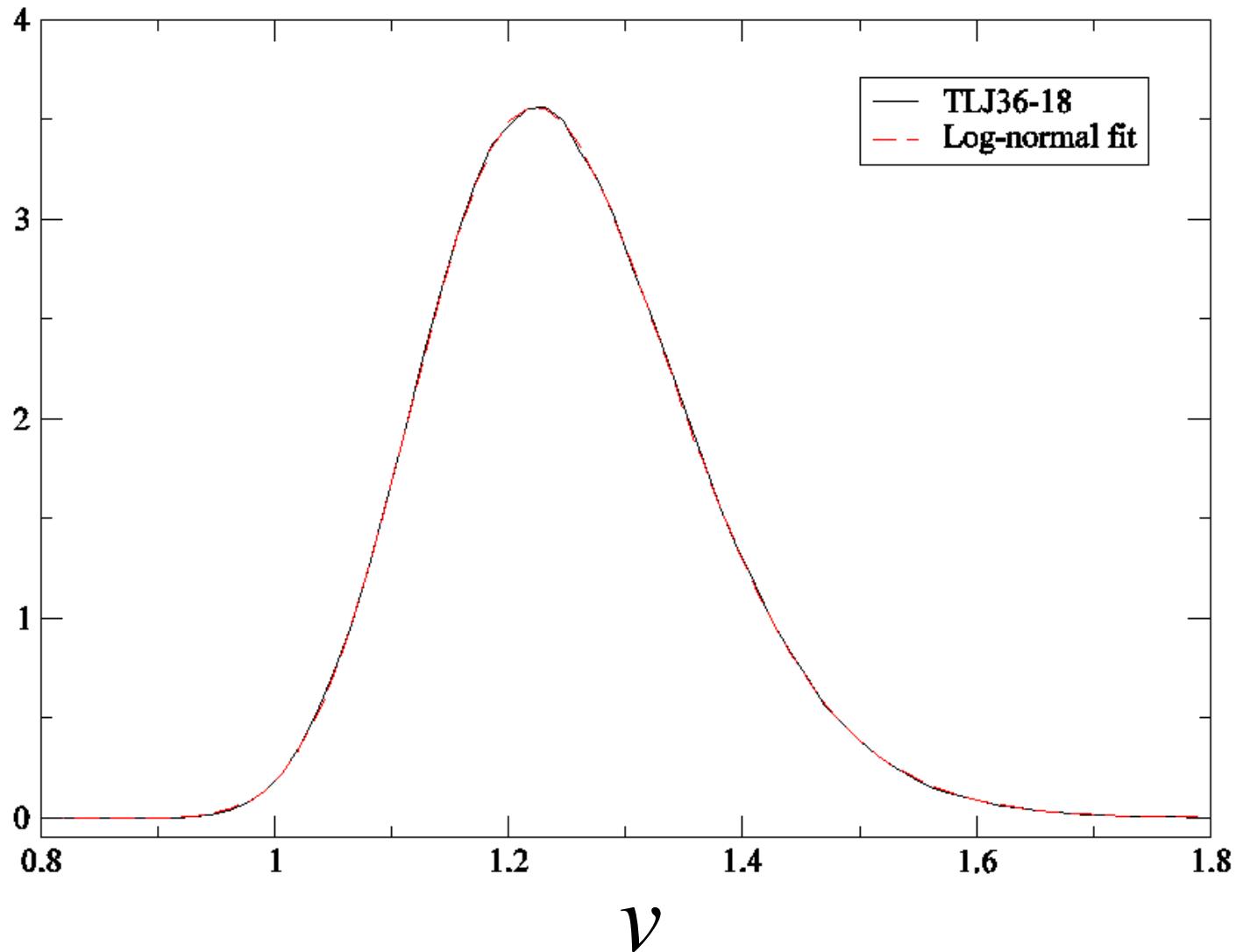
$p(v)$



\mathcal{V}

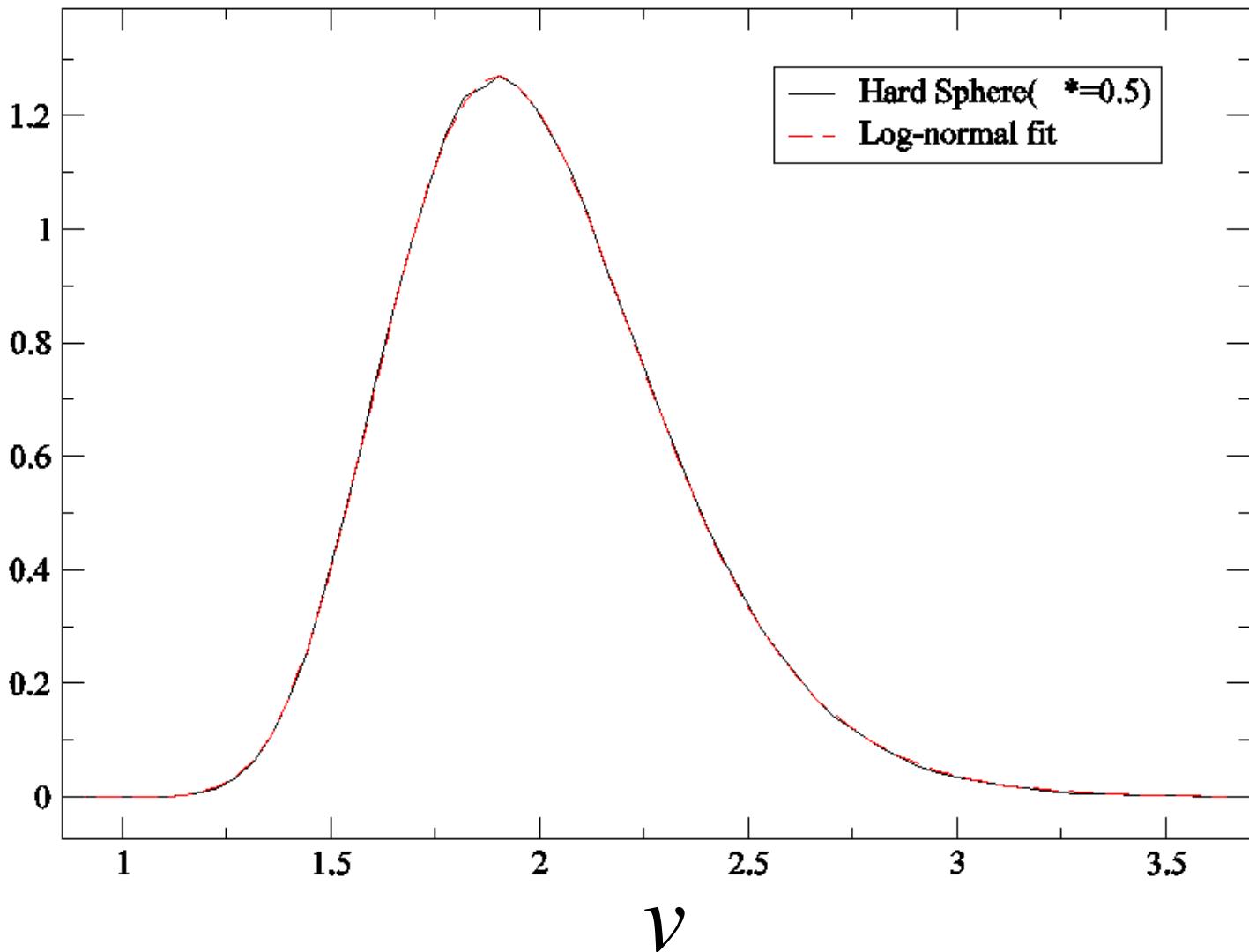
圖四十六、TLJ24-12 fluid的 Voronoi 體積分佈 & lognormal fitting

$p(v)$



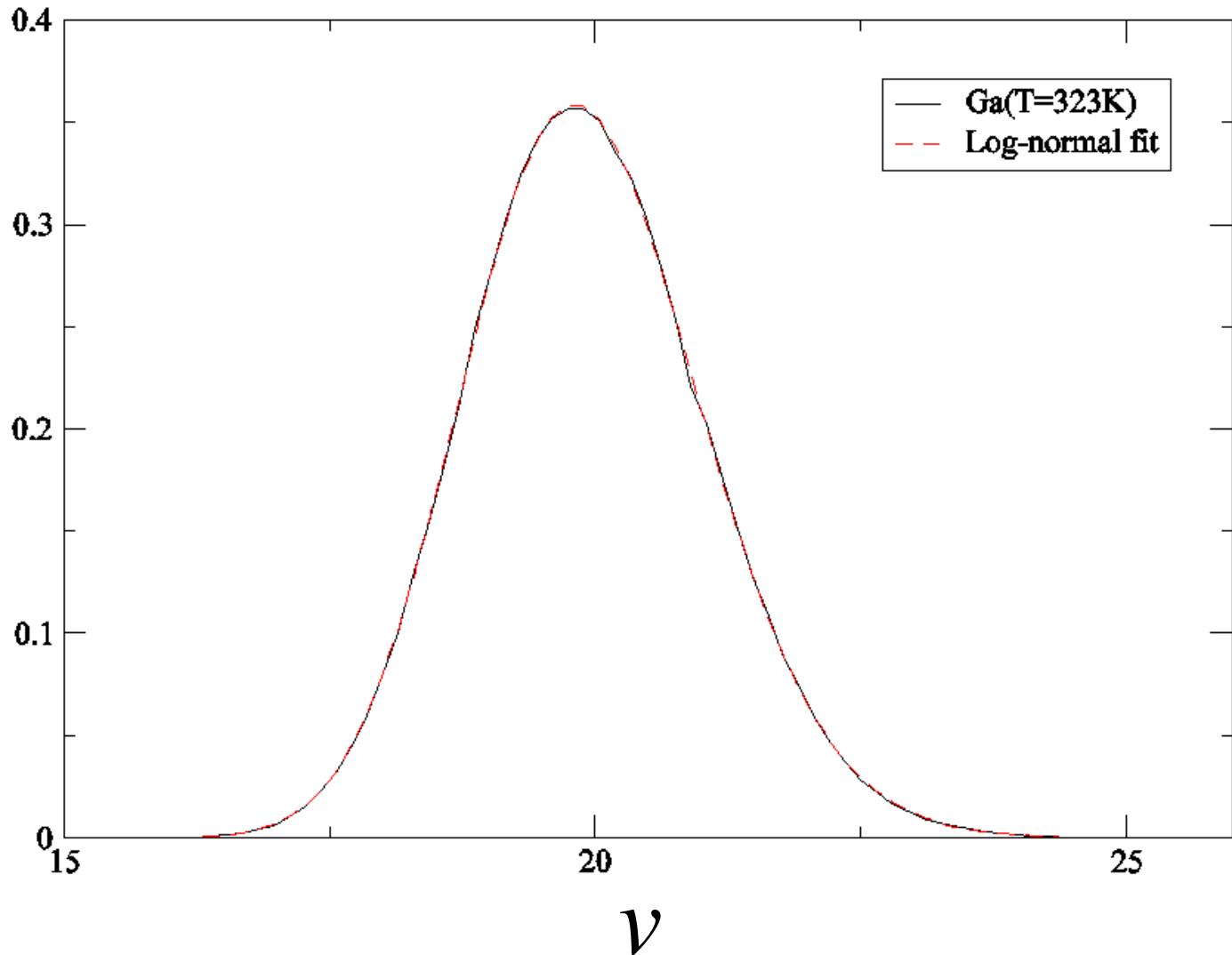
圖四十七、TLJ36-18 fluid的 Voronoi 體
積分佈 & lognormal fitting

$p(v)$



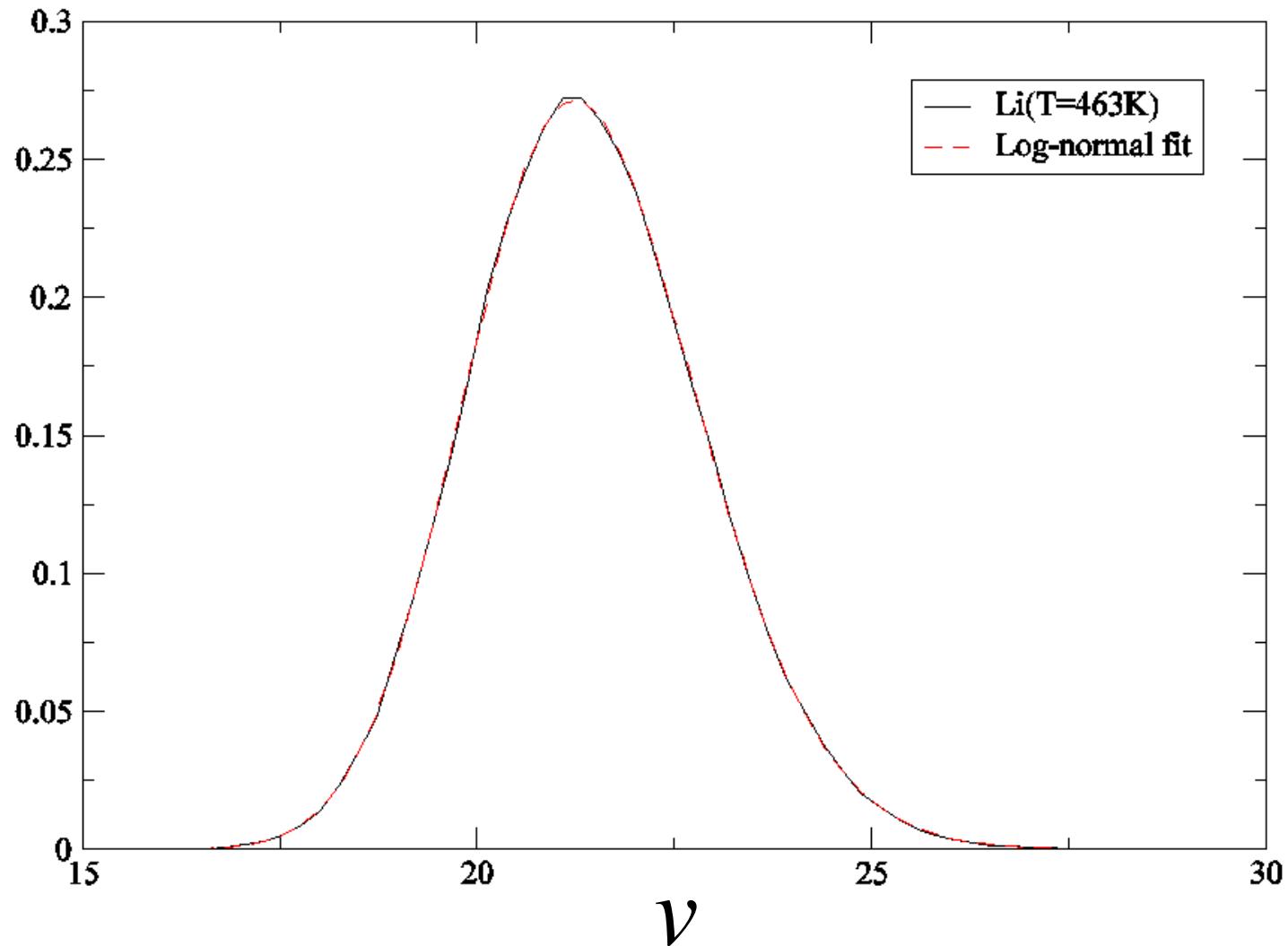
圖四十八、Hard Sphere fluid的 Voronoi
體積分佈 & lognormal fitting

$p(v)$



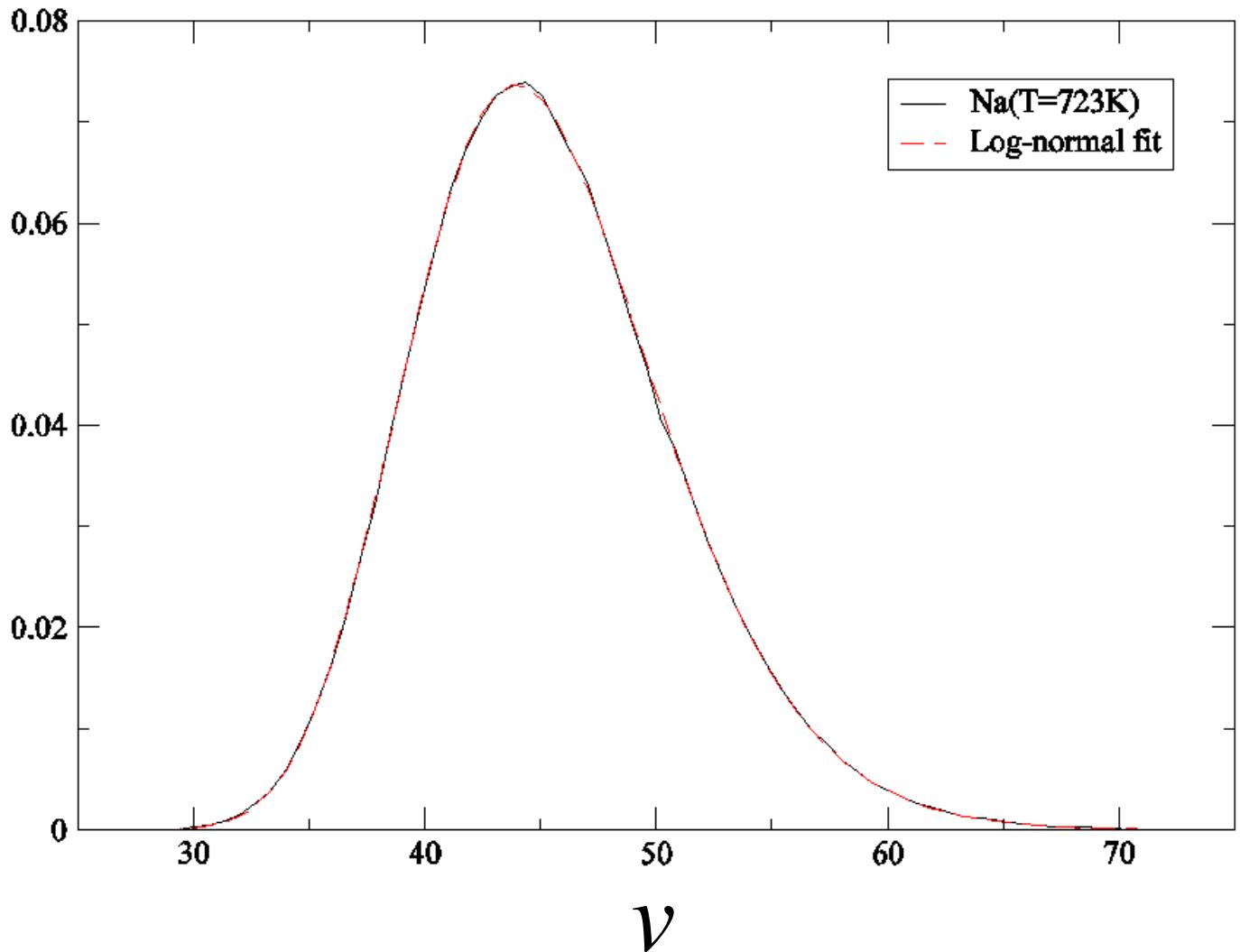
圖四十九、鎵的 Voronoi 體積分佈函數
& lognormal fitting

$p(v)$



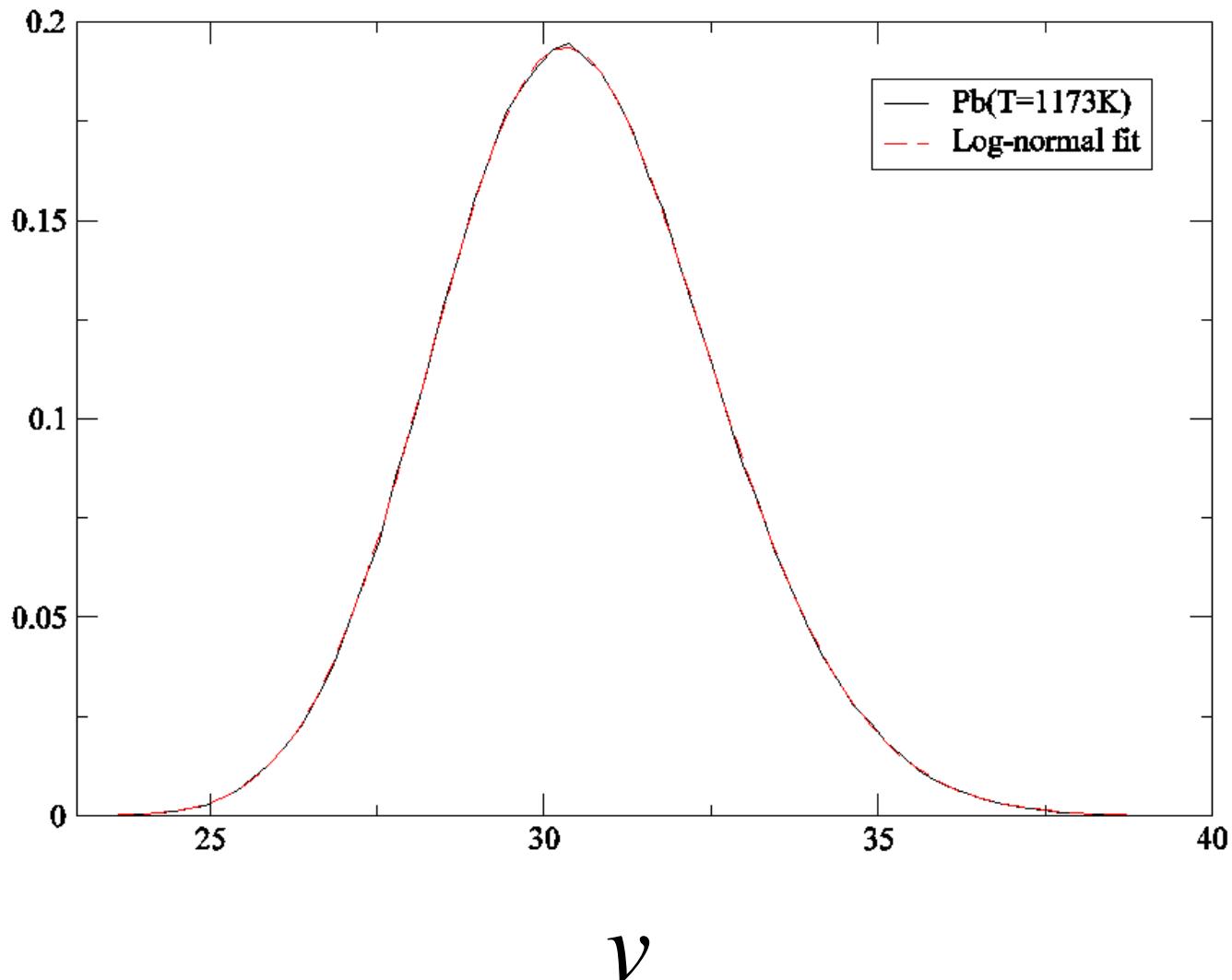
圖五十、鋰的 Voronoi 體積分佈函數 & lognormal fitting

$p(v)$



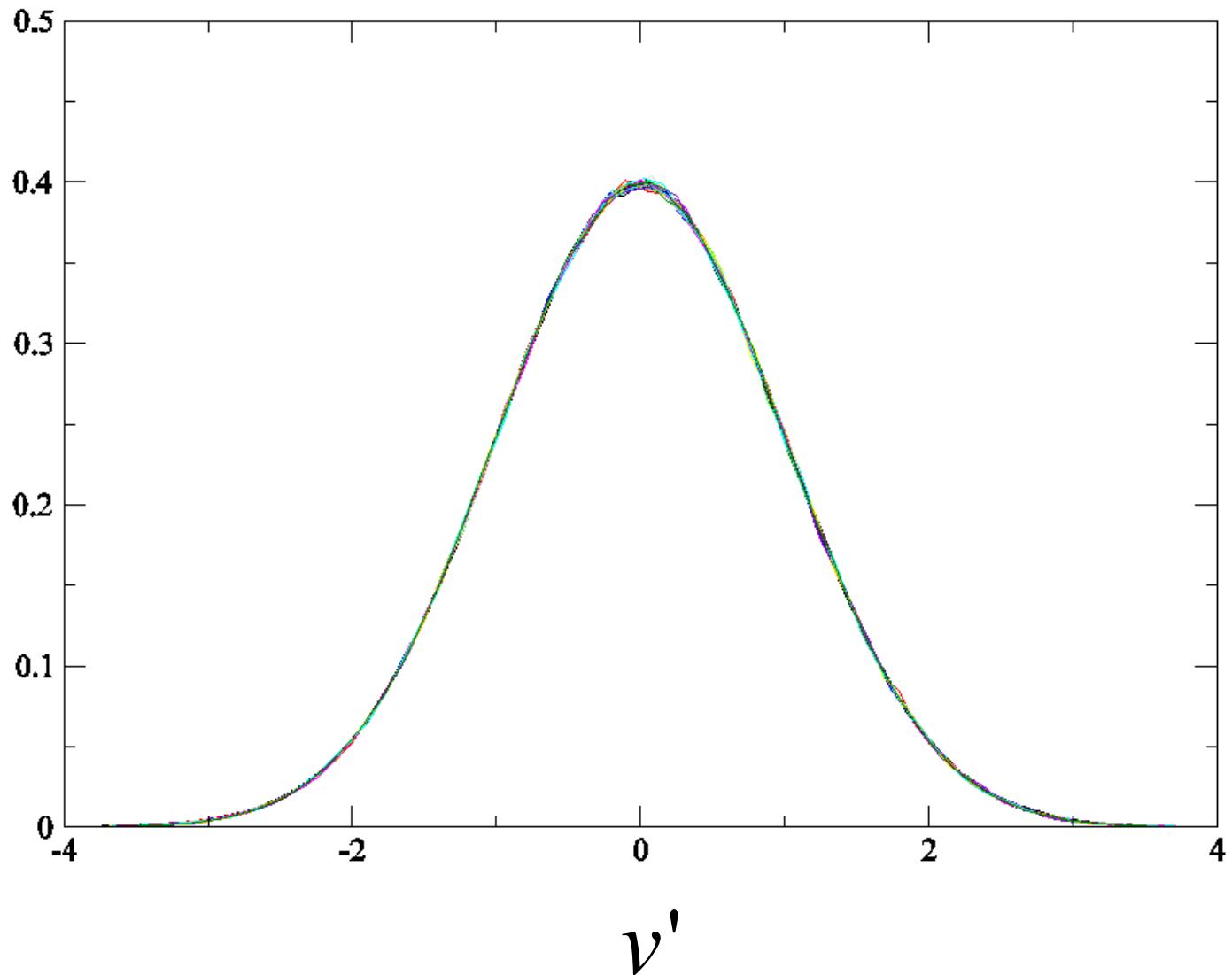
圖五十一、鈉的 Voronoi 體積分佈函數
& lognormal fitting

$p(v)$



圖五十二、鉛的 Voronoi 體積分佈函數
& lognormal fitting

$p'(v')$



圖五十三、所有的液體的 Log-rescaling
Voronoi polyhedron 體積分佈