

CONTENIDO

<i>Presentación</i> , por la físico Rosa María Ambriz	ix
<i>Prólogo</i> , por el doctor Leopoldo García-Colín	xiii

I. SISTEMAS CUÁNTICOS EN EQUILIBRIO

Sobre las propiedades termodinámicas del D_2 y del HD	5
Évaluation de la fonction de distribution binaire d'un gaz quantique imparfait. Méthode générale	57
The pair distribution function of a system of Bose hard spheres, calculated up to the first order in a/λ	61
Pair distribution function of a hard sphere Bose system calculated by the pseudo-potential method	63
On the pair distribution function of hard sphere Bose system	73
Los potenciales interatómicos entre átomos de helio	83
Sublimación y tercera ley de la termodinámica	99
Odd-even effect in the nuclear level density and superfluid model of nuclei	113
On the grand partition function of a superconducting Fermi system	131
Born – Green – Yvon and Kirkwood Hierarchies in equilibrium	145
Behaviour of the pair correlation function in the critical region	149
Behaviour of the pair correlation function in the critical region	151
Comments on the Born – Yvon – Green and Kirkwood hierarchies in equilibrium	169
Ideas modernas sobre la transición líquido-gas	173
Correlated walks and ising problems	203

II. TEORÍA CINÉTICA DE GASES DENSOS

The Chapman-Enskog solution of the generalized Boltzmann equation. . .	233
On the transport coefficients of moderately dense gases	263

Note on the transport coefficients of a moderately dense gas	279
Density expansions of the transport coefficients for a moderately dense gas	285
The generalization of Choh-Uhlenbeck's method in the kinetic theory of dense gases	293
Definition of temperature in the kinetic theory of dense gases	299
The kinetic theory of dense gases	305
A theory of the hydrodynamical state for dense gases.	353
Note on the equivalence of the Bogoliubov and Prigogine theories	395
Equivalence of the Bogoliubov and Prigogine theories	397
Behaviour of transport coefficients of simple fluids in the critical region . .	403
Some comments on a recent method for deriving kinetic equations	421
Kinetic theory of moderately dense gas mixtures. I	427
Kinetic theory of moderately dense gas mixtures. III	
Transport coefficients for binary mixtures of hard spheres	457
Non-linear transport theory	475
The long time tails: their origin and meaning	493
Corrections to Thorne's equations for binary mixtures	505
Transport coefficients from Thorne's modified equation for binary mixtures.	507
On the Enskog-Thorne theory for a binary mixture of dissimilar rigid spheres	511
On the nonequilibrium statistical mechanics of a binary mixture.	
I. The distribution functions	535
On the nonequilibrium statistical mechanics of a binary mixture.	
II. The transport coefficients	545
Compatibility of the Enskog kinetic theory with thermodynamics. I.	561
Compatibility of the Enskog-like kinetic theory with thermodynamics.	
II. Chemically reacting fluids	571
Compatibility of the Enskog kinetic theory with hydrodynamics	581
A new generalization of Enskog's equation for mixtures of dense gases . .	593
Irreversible thermodynamics of a binary mixture of dissimilar hard spheres.	615
An H-theorem for the Enskog equation of a binary mixture of dissimilar hard spheres.	643
Irreversible thermodynamics of a binary mixture of hard spheres:	
The Onsager relations	655