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Nota di contenuto	LANDAU FERMI-LIQUID THEORY; CONTENTS; Preface; 1 Landau Fermi-Liquid Theory and Low Temperature Properties of Normal Liquid 3He; Introduction; 1.1 Static Properties; 1.1.1 Quasiparticles; 1.1.2 Quasiparticle Energy and Interactions; 1.1.3 Equilibrium Properties; 1.2 Nonequilibrium Properties; 1.2.1 Quasiparticle Energies and Interaction; 1.2.2 The Kinetic Equation; 1.2.3 The Conservation Laws; 1.2.4 Transport Coefficients; 1.3 Collective Effects; 1.3.1 Sound in Fermi Liquids; 1.3.2 Spin Waves and Related Phenomena; 1.3.3 Response Functions, Inequalities, and Form Factors 1.4 Scattering of Quasiparticles and Finite Temperature Effects1.4.1 Landau Parameters and Scattering Amplitudes; 1.4.2 The Low Temperature Transport Coefficients of Liquid 3He; Theory and Experiment; 1.4.3 Finite Temperature Transport Coefficients; 1.4.4 Finite Temperature Contributions to the Specific Heat and Magnetic Susceptibility; 1.5 Concluding Remarks; Appendix A: Some Useful Fermi

Integrals; Appendix B: Properties of Q; Appendix C Fermi Liquid Parameters for Liquid 3He; 2 Low Temperature Properties of Dilute Solutions of 3He in Superfluid 4He; Introduction
2.1 Elementary Excitations of Dilute Solutions2.2 Properties of one 3He Atom in 4He at T = 0; 2.2.1 Volume Occupied by 3He; 2.2.2 3He Effective Mass; 2.3 Interactions of the 3He at Very Low Temperature; 2.3.1 3He Landau Parameters; 2.3.2 Low Temperature Properties of Dilute Solutions; 2.3.3 Phenomenological Effective Interaction; 2.3.4 Microscopic Approaches to the Effective Interaction; 2.4 Interaction Between the 3He and 4He; 2.4.1 Effectives of Superfluid Flow on 3He Quasiparticles; 2.4.2 Interaction of 3He Quasiparticles with Long-Wavelength Phonons
2.4.3 Scattering of Phonons by 3He Quasiparticles2.4.4 First Sound in Dilute Solutions; 2.4.5 Second Sound; 2.4.6 Transport Properties; 3 Further Developments; Introduction; 3.1 Liquid 3He; 3.1.1 Quasiparticle Spectrum and Thermodynamic Properties; 3.1.2 Measurements of Transport Properties; 3.1.3 Density and Spin Fluctuations; 3.1.4 Calculations of Scattering Amplitudes; 3.1.5 Superfluid 3He and the Landau Theory of Fermi Liquids; 3.2 Dilute Solutions of 3He in Superfluid 4He; 3.2.1 Equilibrium and Transport Properties; 3.2.2 Higher-Momentum Excitations; 3.3 Spin-Polarized Systems
3.3.1 Spin-Polarized 3He3.3.2 Dilute Solutions of 3He in 4He; 3.3.3 Other Systems; 3.4 Nuclear Applications; 3.4.1 Particles and Quasiparticles; 3.4.2 Quasiparticle Interactions in Nuclei and Nuclear Matter; 3.5 Electrons in Metals; INDEX

Sommario/riassunto

A professional reference for physicists working in condensed matter physics as well as in nuclear physics and astrophysics, on Landau's theory of Fermi liquids--a vital theory of both theoretical and practical use. The emphasis is on the practical development and application of the theory.