

TWO-DIMENSIONAL MAGNETOEXCITONS IN THE FRACTIONAL QUANTUM HALL REGIME

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S u m m a r y

The coplanar electrons and holes in a strong perpendicular magnetic field at low temperatures form magnetoexcitons when the Coulomb interactions between electrons and holes lying on the lowest Landau levels play the main role. However, when the electrons and hole layers are spatially separated, and the Coulomb electron-hole interaction diminishes, a two-dimensional electron gas (2DEG) and a two-dimensional hole gas (2DHG) are formed. Their properties under conditions of the fractional quantum Hall effect can influence the properties of 2D magnetoexcitons. These properties are discussed in the present review.