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Resistively detected high-order magnetoplasmons in a high-quality 2D electron gas M.A. ZUDOV, Q. SHI, University of Minnesota, L.N. PFEIFFER, K.W. WEST, Princeton University, J.D. WATSON, M.J. MANFRA, Purdue University — We report on high-order magnetoplasmon resonances detected in photoresistance in high-mobility GaAs quantum wells. These resonances manifest themselves as a series of resistance extrema in the regime of Shubnikov-de Haas oscillations. Extending to orders above 20, the extrema exhibit alternating strength, being less (more) pronounced at even (odd) order magnetoplasmon modes. The lower magnetoplasmon modes reveal the importance of retardation effects.

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