

LEAST ENERGY SOLUTION FOR A GENERALIZED QUASILINEAR ELLIPTIC PROBLEM

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ABSTRACT. We establish existence of a least energy solution for the elliptic quasilinear Schrödinger equation

$$-\operatorname{div}(g^2(u)\nabla u) + g(u)g'(u)|\nabla u|^2 + V(x)u = h(x, u), \quad x \in \mathbb{R}^N$$

where g is a suitable function, V is a coercive/ or constant like potential and the nonlinearity h is superlinear at infinity and at the origin.

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