of a source term in an elliptic equation

$$-\Delta u(x) + q(x)\chi_D(x)u(x) = 0, \quad x \in \Omega \quad \text{and} \quad u(x) = f(x), \quad x \in \partial\Omega.$$

Here q is a given positive function and χ_D is the characteristic function of a polygon D such that $\overline{D} \subset \Omega$. By using a Carleman estimate, we prove the glo bal uniqueness in this inverse problem within convex hulls of polygons D's.