MR0004055 (2,311f) 39.1X
Plessner, A. [Plesner, Abram Iezekiilovich]
Über die Einordnung des Heaviside'schen Operationskalküls in die Spektraltheorie maximaler Operatoren. (German)
*C. R. (Doklady) Acad. Sci. URSS (N.S.)* 26, (1940). 10–12

Heaviside’s calculus of operations is obtained by considering conditions in appropriate Hilbert spaces. The functions $f$ in these spaces obtain from the unit function 1 by an operation $f = F(id/dt)1$. Here the operator function $F$ of the maximal operator $id/dt$ is being used. This transformation from $f$ to $F$ yields the usual formulas, and permits a vigorous justification of the procedures which lead to them.

*J. von Neumann*