relative retardation, R_{rel}

in planar chromatography

A term which is equivalent to relative retention used in column chromatography: the ratio of the R_F value of a component to the R_F value of a standard (reference) substance. Since the mobile phase front is common for the two components, the R_F value can be expressed directly as the ratio of the distances travelled by the spot of the compound of interest (b_i) and the reference substance (b_{st}) respectively:

$$R_{rel} = \frac{R_{F(i)}}{R_{F(st)}} = \frac{b_i}{b_{st}}$$

In former nomenclatures the symbol R_s was used to express relative retardation in planar chromatography. Because of its identity with the symbol for peak resolution the symbol R_{rel} is suggested for relative retardation in planar chromatography.

Source:
PAC, 1993, *65*, 819 *(Nomenclature for chromatography (IUPAC Recommendations 1993))* on page 845