

## radiant exposure, $H$

Radiant energy,  $Q$ , incident from all upward directions on a small sphere divided by the cross-sectional area of that sphere. SI unit is  $\text{J m}^{-2}$ .

Notes:

1. Equivalent definition: Irradiance,  $E$  integrated over the time of irradiation.
2. Mathematical definition:  $H = \text{d}Q / \text{d}S = \int_t E \text{d}t$  If  $Q$  is constant over the area,  $H = Q / S$ . If  $E$  is constant over the time interval,  $H = E t$ .
3. This term refers to a beam not scattered or reflected by the target or its surroundings. For a beam incident from all directions fluence ( $H_0, F_0$ ) is an equivalent term.

### **Source:**

PAC, 2007, 79, 293 (*Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)*) on page 409