

## time-resolved microwave conductivity

### Acronym: TRMC

Technique allowing the quantitative and qualitative detection of radiation-induced changes in the real,  $\Delta\text{Re}\sigma$ , and imaginary,  $\Delta\text{Im}\sigma$ , components of the conductivity of a medium by time-resolved measurement of changes in the microwave absorption resulting from the formation of mobile charges or from changes in the dipole moment or polarizability of molecules on excitation.

#### Note:

From  $\Delta\text{Re}\sigma$  (corresponding to a change in the dielectric loss,  $\Delta\varepsilon''$ ) the product of the yield and the mobility of charges carriers or the dipole moment change can be determined. From  $\Delta\text{Im}\sigma$  (corresponding to a change in the relative permittivity,  $\Delta\varepsilon'$ ) the product of the yield and the change in molecular polarizability can be determined.

#### Source:

PAC, 2007, 79, 293 (*Glossary of terms used in photochemistry, 3rd edition (IUPAC Recommendations 2006)*) on page 433