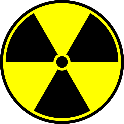
**TIPS FOR SEARCHING OUR DATABASE radphysbio**

[**http://radbiodb.physics.ntua.gr/radphysbio/**](http://radbiodb.physics.ntua.gr/radphysbio/)

Our database has a user-friendly interface, and can be searched by using the type of radiation, or the combination of more than one types of radiation. It includes five different types of radiation, X-rays, γ-rays, protons, carbon ions and α-particles. More specifically, it contains 2.734 experiments conducted in human cells and it combines physical and biophysical characteristics of radiation, expressing at the same time the induced biological damage.

Hide column descriptions

**#ExpID:**

Running number labelling the database entry.

**PMID:**

Running number labelling the publication.

**#Exp:**

Running number labelling the irradiation experiments within a publication.

**CellLine:**

Name of the irradiated cell line.

**Tissue:**

Name of cell tissue.

**CellClass:**

Tumor cells (t) or normal cells (n).

**CellCycle:**

Cell cycle phase (phases are given explicitly in each case, or noted by ‘a’ for ‘asynchronous’ cell lines).

**Source:**

Type of radioactive source.

**Energy (MeV):**

Specific radiation energy, evaluated at the target.

**RBE:**

Relative Biological Effectiveness.

**LET (keV/μm):**

Linear Energy Transfer in water.

**IrradiationConditions:**

Mono-energetic radiation (‘m’), or spread out Bragg peak (‘s’).

**DoseRate (Gy/min):**

Quantity of radiation delivered per minute of time.

**α:**

Linear coefficient of the LQ model (in Gy-1) for response to radiation as given in the corresponding publication, or else from fitting to raw data.

**β:**

Quadratic coefficient of the LQ model (in Gy-2) for response to radiation as given in the corresponding publication, or else from fitting to raw data.

**DSBs/(Gbp\*Gy):**

Number of initial DSB per Gbp per Gy, as given in the corresponding publication.

**nonDSBClusters/(Gbp\*Gy):**

Number of initial non-DSB clusters per Gbp per Gy, as given in the corresponding publication.

**DSBs\_1%O2:**

Number of initial DSB per Gbp per Gy calculated by the MCDS simulation code, for the specific energy of each experiment and 1% oxygen concentration in the cell.

**Other\_1%O2:**

Number of initial non-DSB clusters per Gbp per Gy calculated by the MCDS simulation code, for the specific energy of each experiment and 1% oxygen concentration in the cell.

**DSBs\_20%O2:**

Number of initial DSB per Gbp per Gy calculated by the MCDS simulation code, for the specific energy of each experiment and 20% oxygen concentration in the cell.

**Other\_20%O2:**

Number of initial non-DSB clusters per Gbp per Gy calculated by the MCDS simulation code, for the specific energy of each experiment and 20% oxygen concentration in the cell.

**1keV\_DSBs\_1%O2:**

Number of initial DSB per Gbp per Gy calculated by the MCDS simulation code, for 1keV energy and 1% oxygen concentration in the cell.

**1keV\_Other\_1%O2:**

Number of initial non-DSB clusters per Gbp per Gy calculated by the MCDS simulation code, for 1keV energy and 1% oxygen concentration in the cell.

**1keV\_DSBs\_20%O2:**

Number of initial DSB per Gbp per Gy calculated by the MCDS simulation code, for 1keV energy and 20% oxygen concentration in the cell.

**1keV\_Other\_20%O2:**

Number of initial non-DSB clusters per Gbp per Gy calculated by the MCDS simulation code, for 1keV energy and 20% oxygen concentration in the cell.

**10keV\_DSBs\_1%O2:**

Number of DSB per Gbp per Gy calculated by the MCDS simulation code, for 10keV energy and 1% oxygen concentration in the cell.

**10keV\_Other\_1%O2:**

Number of initial non-DSB clusters per Gbp per Gy calculated by the MCDS simulation code, for 10keV energy and 1% oxygen concentration in the cell.

**10keV\_DSBs\_20%O2:**

Number of initial DSB per Gbp per Gy calculated by the MCDS simulation code, for 10keV energy and 20% oxygen concentration in the cell.

**10keV\_Other\_20%O2:**

Number of initial non-DSB clusters per Gbp per Gy calculated by the MCDS simulation code, for 10keV energy and 20% oxygen concentration in the cell.