================================ BLACK BODY ================================

BLACK_BODY is an widget based graphical interface to calculate the spectum of a black body emitter as a function of the photon energy.

The formulas used can be obtained, for example, from:
David Attwood
Soft X−rays and extreme ultraviolet radiation. Principles and applications
Cambridge University Press, 2000, Pags. 242−246

DESCRIPTION OF THE CONTROLS IN THE MAIN WINDOW:

File:
 Black_body input parameters: This option allows to save the current parameters to a file for later loading. It also allows to save the current parameters as defaults for being used when the application is initialized. In the last case, the file is named "application".xop (where "application " is the name of the current XOP application) and is written in the directory pointed by the XOP_DEFAULTS_DIR environment variable (which must be set). The parameter file is ASCII and can be read and edited with care.
  Write Files for XOP/Optics: Saves the current undulator spectrum in the SRCOMPE (flux) and SRCOMPW (Power) files to be used for the other XOP application from Optics menu.
Quit: to exit from the program

Set_Parameters:
Set Parameters: to define the parameters for the calculation. The same result is obtained pressing the "Set Parameters" button in the main BLACK_BODY window. Please refer to the information under the HELP button for a complete description of the parameters.
Set Defaults: Sets the default parameters.

Show: Display results. Several options are available
  Plot Results: Makes a plot pf the results
  View Results: Diaplays some numerical information

Help: Shows the BLACK_BODY help (this text).

CREDITS:
Published calculations made with XOP should refer:

M. Sanchez del Rio and R. J. Dejus "XOP: Recent Developments"
SPIE proceedings vol. 3448, pp.340−345, 1998.

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Description of the input parameters for BLACK_BODY:

TITLE: Information title

TEMPERATURE [K]: The emitter temperature in Kelvin

MIN ENERGY [eV]: Minimum photon energy for the calculated spectrum, in eV.

MAX ENERGY [eV]: Maximum photon energy for the calculated spectrum, in eV.

NUMBER OF POINTS: Number of energy points for the energy spectra