

## Steps in installing and running the files

- ◆ Create a subdirectory and copy the file in there **sulfate2.zip** in there.
- ◆ Double click on the zip file to expand it.
- ◆ If you have matlab, you can run the **sulfate 2.m** file. You can also change the physical parameters and mechanical parameters of the model.
- ◆ If you do not have matlab installed, you can still run the program but can not change the physical parameters of the model. The program to execute is the **sulfate2.exe** program which can be executed using the windows explorer. Alternatively you can use the icon provided as MTM (Mobasher-Tixier Model). Simply move this icon to the desktop, right click on it to appropriately identify the path to the sulfate2.exe file according to the specific directory you have stored all the files.
- ◆ The input file to the model is “**sulfate\_model\_data2.dat**”. It can be edited using any text editor. Please make sure that there are no blank spaces in the comment area after each parameter.
- ◆ The last parameter on the data file is a sequence of user supplied numbers. These numbers are used to generate output files. In that way, each run can be preserved since the input and output files to the model are saved.
- ◆ The two data files generated as the output list:
  - 1) input info (info1241.dat)
  - 2) expansion, and stiffness degradation vs. time plots. (out1241.dat)
- ◆ The output files can be imported into excel or other plotting media including matlab.

## Additional Steps for Installing The Application On A Computer That Does Not Have Matlab Software

To install the application, you should:

- ◆ Run the MATLAB Compiler Run-Time Library Installer. This program extracts the libraries from the archive and installs them in subdirectories of a directory specified by the user.
- ◆ This is the only MATLAB Compiler Run-Time Library subdirectory that needs to be added to the path.

Note: If your already have the MATLAB math and graphics run-time libraries installed, you do not need to reinstall them. You only need to ensure that the library search path is configured correctly.

On UNIX Systems:

- ◆ On UNIX systems, run the MATLAB Compiler Run-Time Library Installer by executing the **mglinstaller** command at the system prompt. You can specify the

name of the directory into which you want to install the libraries. By default, the installer puts the files in the current directory. After the installer unpacks and uncompresses the libraries, you must add the name of the bin/<ARCH> subdirectory to the LD\_LIBRARY\_PATH environment variable. (The equivalent variable on HP-UX systems is the SHLIB\_PATH and LIBPATH on IBM AIX systems.) For example, if you are working on a Linux system and specify the installation directory mgl\_runtime\_dir, then you must add mgl\_runtime\_dir/bin/glnx86 to the LD\_LIBRARY\_PATH environment variable.

On PCs:

- ◆ On PCs, run the MATLAB Compiler Run-Time Library Installer by double-clicking on the **mglinstaller.exe** file. You can specify the name of the directory into which they want to install the libraries. By default, the installer puts the files in the current directory. After the installer unpacks and uncompresses the libraries, you must add the bin\win32 subdirectory to the system path variable (PATH). For example, if you specify the installation directory c:\mgl\_runtime\_dir, then you must add c:\mgl\_runtime\_dir\bin\win32 to PATH.

Adding to the path function is as follows for windows 2000 system requires the following set of key strokes:

- Start
- Settings
- Control panel
- System
- Advanced
- Environmental variables
- System variables
- Path
- Edit
- Add the following to the path statement : c:\mgl\_runtime\_dir\bin\win32 to PATH statement
- Click on OK to Save it, and then exit.