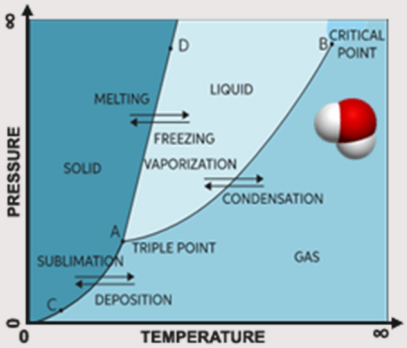
CHEFEM 3 SOFTWARE

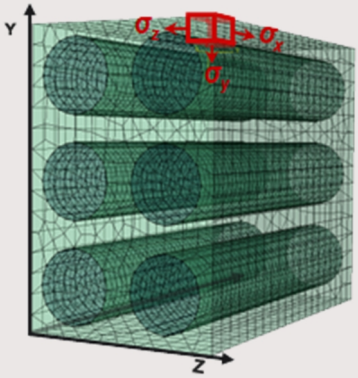
LEADING DESIGN TOOL FOR CHEMICAL EXPOSURE ANALYSIS

The CheFEM App is a leading design tool used for the virtual analysis of chemical exposure effects on polymers and their composites. Its core code utilizes the calibrated Sanchez-Lacombe Equation of States and Finite Element Methodology (FEM). CheFEM can operate as a standalone application or seamlessly integrate as a 'chemical exposure plug-in' with other widely-used mechanically-oriented FEM packages, such as Abaqus, Ansys and SolidWorks.



CALIBRATED CHEMICAL & MATRIX EQUATION OF STATES

+



8-NODE FINITE ELEMENT METHODOLOGY

=

APPLIED PERMEABILITY & MECHANICAL RESPONSE

CHEFEM OUTPUT

- Chemical/Mixture Permeability
- Exposed Stiffness & Strength
- Diffusion + Chemical-Reaction Module
- (Vented) Annulus Condition
- FEM Loads & Constraints
- Chemical-Thermal Spiking
- Rapid Gas Decompression Analysis
- Fugitive Emission Module

SYSTEM ATTRIBUTES

- Built-in Calibrated EOS (SL, GIM, Redlich-Kwong)
- Built-in 8-node FEM Mesher
- Abaqus API, Ansys API, Excel API, etc.
- Matrix Mechanical Data Automation
- Modern App - No Local Installations
- Automatic Weekly Code Updates

USERS INCLUDE:

CHEFEM® IS MADE BY COMPOSITE ANALYTICA | HTTPS://COMPOSITE-ANALYTICA.COM | CONTACT@COMPOSITE-ANALYTICA.COM
HERENGRACHT 280 | 1016 BX AMSTERDAM | THE NETHERLANDS | TEL: +31 (0)20 561 77 59 | Ver. 3.3 © COMPOSITE ANALYTICA