

# F-Search system Ver. 3.8

**“F-Search”** is a mass spectral search software system that helps identify polymers and additives based on EGA thermogram and pyrogram data

## Features of F-Search system Ver. 3.8

### 1) Search software and four libraries

Libraries can be selected for your specific needs. The reliability of analysis results is greatly improved by evaluating data obtained by different techniques.

### 2) Search is made by unique algorithm independent of analytical conditions

Using proprietary search algorithm\*, the search results are not influenced by factors such as analytical conditions and types of separation columns.

\* Japanese patent 3801355, US patent 6444979

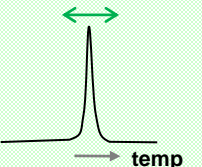
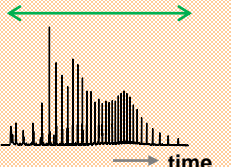
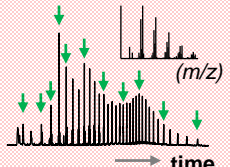
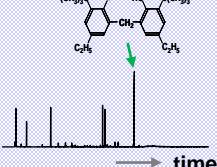
### 3) More polymers stored in libraries **NEW**

Approximately 650 polymers, including natural products, textiles, fats, oils, adhesives, etc., have been newly added to the previous Ver. 3.7 libraries. These additions enhance the library's utility not only valuable for general analysis but also significantly effective in foreign matter analysis.



F-Search and libraries with version 3.2 or later can be upgraded to the latest version.

## Specifications

| <b>F-Search<br/>“All-In-One”<br/>(Ver. 3.8)</b><br><br>(Includes search engine<br>F-Search Ver. 3.8 and<br>all four libraries) | <b>EGA library</b><br><b>NEW</b><br><br>                                                     | <b>PyGC-MS library</b><br><b>NEW</b><br><br> | <b>Pyrolyzate library</b><br><b>NEW</b><br><br> | <b>Additive library</b><br><b>NEW</b><br><br> |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Analytical technique (MS)                                                                                                      | Evolved gas analysis (EGA)-MS                                                                                                                                                   | Pyrolysis-GC/MS (Py-GC/MS) and Thermally assisted hydrolysis and methylation-GC/MS (THM-GC/MS)                                  |                                                                                                                                     | Pyrolysis-GC/MS (Py-GC/MS) and thermal desorption-GC/MS (TD-GC/MS)                                                                 |
| Number of polymers/additives                                                                                                   | 1,960 polymers                                                                                                                                                                  | 1,960 polymers<br>(THM data in 33 polymers)                                                                                     | 268 polymers *1<br>(THM data in 33 polymers)<br>165 (out of 268 polymers) *2                                                        | 590 additives                                                                                                                      |
| Stored chromatogram                                                                                                            | Thermogram                                                                                                                                                                      | Pyrogram/chromatogram                                                                                                           |                                                                                                                                     |                                                                                                                                    |
| Number of mass spectra                                                                                                         | c.a. 3,800                                                                                                                                                                      | c.a. 5,800                                                                                                                      | c.a. 8,900                                                                                                                          | c.a. 5,800                                                                                                                         |
| Compatible GC/MS (Available software)                                                                                          | Agilent (MassHunter, ChemStation), Shimadzu (GCMSsolution, LabSolutions), and JEOL (Novaspec, Escripme) Thermo, Varian, PerkinElmer, and LECO require conversion to AIA format. |                                                                                                                                 |                                                                                                                                     |                                                                                                                                    |
| PC system required                                                                                                             | OS : Windows 11, 10, 8.1 (64 bit or 32 bit), minimum storage space : 600 MB                                                                                                     |                                                                                                                                 |                                                                                                                                     |                                                                                                                                    |

\*1 Data obtained by 5 % phenyl 95 % dimethylpolysiloxane-based separation columns

\*2 Data obtained by polyethylene glycol-based separation column



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Offering superior products from a company specialized in development and production of high performance pyrolyzers and metal capillary columns.