

```

##TITLE=Tiny IR Spectrum for Demo
##JCAMP-DX=4.24
##DATA TYPE=INFRARED SPECTRUM
##OWNER= GPL-3 (modified from BRUKER1.JCM (IUPAC) by B. Hanson)
##XUNITS=1/CM
##YUNITS=TRANSMITTANCE
##FIRSTX= 4000.655017
##LASTX= 400.1619262
##DELTAX= -9.64245605E-1
##MAXY= 95.83563804
##MINY= -2.87246704E-1
##XFACTOR= 4.882812500E-4
##YFACTOR= 1.220703125E-2
##NPOINTS= 612
##FIRSTY= 7493

```

```

##XYDATA=(X++(Y..Y))
4861896G493jknkJlKjJjJlKj0kNTjNKJNKMLmKqMnKkOjJKJKTNNMNKJMjJKTJTkm1K1KJ
4729586G542nNjKmJMjMj1jKmk1T1JkNjMLNMTMK1KjmkjKTlokmqkqj0oTrj4j3j9k3k818
4611099G336m7o0q2j07j38j73k10k40k62k53k11j55p2K0J09J76K11K28K20J97J70J45J22J01
4563705G025Q6P000N1M4L8L2K8K4K1J7J8J1RTQNMTkMTjNLNMJULJKUJjJkTnmkTLTJ00LRMULJM
4453117G637JTLJKTJjJlKkL1LjJLkKjTMjJLjJk1K1LjKJjJKTJ1jKJT1KTkLTjKJTMJTK
4320808G688JKTkLjJ0kKjJTKkKUKjLNkmLjL1JK10mJkKkMjTTkNKkKjKjJLTmKJkKkLJmJL
4186523G715jTKLk1JLkKjKJjUKUkJKT1jKnMJLmNjJUMkLkTUjMKJKjJ3J1PnMKLJTKjMkK
4050263G750JjKJTKJqNKJlK1KTPnM1K1JUjT0j9J8kKk1L1KLmMjJNj1j2K01Qj5
3929802G753k9L4Qm0kMnJMkNjTKJk1K1TmTQkMk4LK3k1JNLkLJLmNjKJl18JK71J0MjL1j
3811316G794JkMkMpKkMmTnPj5r1J2Q0k2J7kTjJ6rPqOmn3L1K3Lm8L3K0j4J3p0jrMTkJl
##END=

```

Key to the above:

- **Entire File.** Input for *findVariableLists*, as a vector of character strings.
- **Metadata.** Input for *extractParams*, as a vector of character strings.
- **Variable List.** Input for *processVariableList* and *decompressXXX*, as a vector of character strings.

The entire file is the input to *findVariableLists*. Here are two raw lines from the variable list; each is a character vector of length one:

```

[1] "4861896G493jknkJlKjJjJlKj0kNTjNKJNKMLmKq%MnKk%OjJKJKTNNMNKJMjJKTJTkm1K1KJ"
[2] "4729586G542nNjKmJMjMj1jKmk1T1JkNjMLNMTMK1KjmkjKTlokmqkqj0oTrj4j3j9k3k818"

```

The input to *decompLines* and *getComp* is a vector of *named* raw lines:

```

Line_17
"4861896G493jknkJlKjJjJlKj0kNTjNKJNKMLmKq%MnKk%OjJKJKTNNMNKJMjJKTJTkm1K1KJ"
Line_18
"4729586G542nNjKmJMjMj1jKmk1T1JkNjMLNMTMK1KjmkjKTlokmqkqj0oTrj4j3j9k3k818"

```

The input to *unSQZ*, *insertDUPS*, *deDIF* and *yValueCheck* is a *named* list of lines. Each raw line has been split into the individual pieces and named according to its compres-

sion mode:

\$Line_17

NUM	SQZ	DIF	DIF	DIF	DIF	DIF	DIF
"4861896"	"G493"	"j"	"k"	"n"	"k"	"J"	"l"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"k"	"J"	"j"	"J"	"l"	"K"	"%"	"j"
DIF	DIF	DIF	DIF	DUP	DIF	DIF	DIF
"O"	"%"	"k"	"N"	"T"	"j"	"N"	"K"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"J"	"N"	"K"	"M"	"l"	"m"	"K"	"q"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"%"	"M"	"n"	"K"	"k"	"%"	"O"	"j"
DIF	DIF	DIF	DIF	DUP	DIF	DIF	DIF
"J"	"K"	"J"	"K"	"T"	"N"	"%"	"N"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"M"	"%"	"N"	"K"	"%"	"J"	"M"	"%"
DIF	DIF	DIF	DUP	DIF	DUP	DIF	DIF
"J"	"j"	"K"	"T"	"J"	"T"	"k"	"M"
DIF	DIF	DIF	DIF	DIF			
"l"	"K"	"l"	"K"	"J"			

The input to *unDIF* is a character vector with entries named with ASDF mode:

NUM	SQZ	DIF	DIF	DIF	DIF	DIF	DIF
"4861896"	"G493"	"j"	"k"	"n"	"k"	"J"	"l"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"k"	"J"	"j"	"J"	"l"	"K"	"%"	"j"
DIF	DIF	DIF	DIF	DUP	DIF	DIF	DIF
"O"	"%"	"k"	"N"	"T"	"j"	"N"	"K"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"J"	"N"	"K"	"M"	"l"	"m"	"K"	"q"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"%"	"M"	"n"	"K"	"k"	"%"	"O"	"j"
DIF	DIF	DIF	DIF	DUP	DIF	DIF	DIF
"J"	"K"	"J"	"K"	"T"	"N"	"%"	"N"
DIF	DIF	DIF	DIF	DIF	DIF	DIF	DIF
"M"	"%"	"N"	"K"	"%"	"J"	"M"	"%"
DIF	DIF	DIF	DUP	DIF	DUP	DIF	DIF
"J"	"j"	"K"	"T"	"J"	"T"	"k"	"M"
DIF	DIF	DIF	DIF	DIF			
"l"	"K"	"l"	"K"	"J"			

The input to *repDUPs* is a character vector with length one:

DUP
"T"